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305 Ser G		<b>.</b>	C	A 1 -	310 Ser	Glu	Glu	Ser	Glu	Ser	Glu	Glu	Ser	Glu	Asp
Ser G	ira :	ser	ser		SEL	GIU	014		330					335	
Ala G		<b>.</b>	<b>~1</b> ~	325	C1 n	בות	Asp	Glu	Glu	Glu	Glu	Asp	Asp	Asp	Phe
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_,	<b>~</b> 3		500	Lys	Bro	Aen	Δla	Phe	His	Val	Cys	Ile	Thr	Ser	Tyr
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	610				-	615	5		Tye	. Val	Lei	Arc	Pro	) Phe	Leu
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Pro	Val	Leu	Ala	Ser	Ser	Gln	Thr	Pro	Val	Pro	vai	met	Ala	137	261
				126	5				13/	U				10,	_
Ser	Thr	Pro	Gly	Thr	Ser	Leu	Ala	Ser	Ala -	Ser	Pro	vaı	139	V WIG	Pro
			170	0				138	5				133	U	
Thr	Pro	Val	Leu	Ala	Pro	Ser	Ser	Thr	GIn	Thr	met	140	FLO	Ala	Pro
		139	5				140	0		m\	C1 =			Δla	ī.eu
Val	Pro	Ser	Pro	Leu	Pro	Ser	Pro	Ala	Ser	inr	142	V	Dea	714	Leu
	141	0				141	5		-1				Car	Gln	Thr
Ala	Pro	Ala	Leu	Ala	Pro	Thr	Leu	GIY	GIY	143	261	FIO	301	<b></b>	Thr 1440
142	5				143	0_		<b>~1</b> ~	G1.	. D~c	o Dha	Dro	Thr	Gln	
Leu	Ser	Lev	ı Gly	Thr	Gly	Asn	Pro	GIN	145	V PIC	PIIC	110		145	Thr 5
				144	5	<b>0</b>			143	Dro	Thr	Pro	Ala		Thr
Leu	. Ser	Lei			Ala	Ser	Ser	146	5				147	0	
			146	0	<b>93.</b>		D-0	140	่ อาก	Pro	Thr	Gln			Ser
		14	75				. Ala	Dro	. מו	Set	- Pro	Val	Glv	, Pro	Ala
Lev			o Ala	a Pro	Pro	149	r wra	PIC	, ,,,,		150	0	•		
	149	90	_,		. The	143	כי . או .	Dro	Δla	Set			Ala	Ser	Leu 1520
		a His	s Thi	Let	1 INE	, ner	. ATO	· FIC	, ,,,,	151	. 5				1520
150	)5	_		٥	151	.u ~1-	The	- 1.61	Thr			Pro	Ala	a Pro	Val
Let	ı Ala	a Pr	D Ala			. 611		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	153	30				153	35
_		_		152	45 - *1-		. Al-	, G1-	Th	c Lei	ı Ala	Leu	Ala		Ala
			1.	4.0				154	5				10.	, ,	
			154	40	1.		- 61-	. Ala	Sei	r Sei	r Lei	ı Val	. Va.	l Sei	r Ala
Se	r Th			r Pro	) Ala	. 261	156	:U	. 50			156	5		
_		15	55 - ``	- P		, n~	1/20 1/21	, Thi	- Mei	t Va	l Sei			u Pro	o Val
Se			a Ali	a Pro	ı re/	15	, va.				158	30	-		
_	15 - 1	/U	<b>-</b> 1 -	.,	- Ac-	ነ ጥት፣ ተጋ	.j r J.el	ı Thi	. Lei	u Ar			/ Pro	o Pro	o Ser
se:	r LV	5 AS	ובטיט	LL F L !	- 73						-	_			

1585					1590					1595					1600
				1605	5				1610					1615	
			1620	)				1625	;	Leu			1630	1	
		1635	,				1640	)		Glu		1645	,		
	1650	)				1655	5			Tyr	1660	)			
1665	;				1670	)				Ser 1675	;				1680
		_		1689	5				1690					1695	5
			1700	)				1705	,	Leu			1710	)	
		1715	5				1720	)		Pro		1725	5		
	1730	)				1739	5			Trp	1740	)			
1745	5				1750	)				Leu 1755	;				1760
				1765	5				1770					1775	5
			1780	)				1785	5				1790	)	Leu
		1795	5				1800	)		Val		1805	5		
-	1810	)				1819	5			Phe	1820	)			
1825	5				1830	)				Arg 1839	5				1840
Ala	Leu	Met	Glu	Arg	Phe	Asn	Ala	Asp	Lys	Arg	Ile	Phe	Cys		
				184	5				1850	0				1855	
	Ser	Thr	Arg	1849 Ser	5 Gly	Gly	Val	Gly 186	Val	) Asn			1870	Ala	Asp
Thr	Ser Val	Thr Val	Arg 1860 Phe	1849 Ser O Tyr	Gly Asp	Gly Ser	Val Asp	Gly 1869 Trp	Val S Asn	Asn Pro	Thr	Met 1889	1870 Asp	Ala ) Ala	Asp Gln
Thr	Ser Val Gln	Thr Val 1879 Asp	Arg 1860 Phe	1849 Ser O Tyr	Gly Asp	Gly Ser	Val Asp 1880 Ile	Gly 1869 Trp	Val S Asn	) Asn	Thr	Met 1885 Asp	1870 Asp	Ala ) Ala	Asp Gln
Thr Ala	Ser Val Gln 189	Thr Val 1879 Asp	Arg 1860 Phe Arg	1849 Ser Tyr	Gly Asp His	Gly Ser Arg	Val Asp 1880 Ile	Gly 1869 Trp O	Val Asn Gln	Asn Pro Thr	Thr Arg 1900 Asn	Met 1889 Asp	1870 Asp S Val	Ala ) Ala His	Asp Gln Ile Lys
Thr Ala Tyr	Ser Val Gln 1899 Arg	Thr Val 1875 Asp O Leu	Arg 1866 Phe Arg	1849 Ser Tyr Cys	Gly Asp His Glu 1910	Gly Ser Arg 1899 Arg	Val Asp 1880 Ile 5	Gly 1869 Trp O Gly	Val Asn Gln	Asn Pro Thr Glu 1915	Thr Arg 1900 Asn	Met 1889 Asp ) Ile	1870 Asp Val Leu	Ala ) Ala His Lys	Asp Gln Ile Lys 1920
Thr Ala Tyr 1909 Ala	Ser Val Gln 189 Arg S	Thr Val 1875 Asp Color Leu Gln	Arg 1866 Phe Arg Ile	1849 Ser Tyr Cys Ser Arg	Gly Asp His Glu 1910 Met	Gly Ser Arg 1899 Arg Leu	Val Asp 1880 Ile Thr	Gly 1865 Trp Gly Val	Val Asn Gln Glu Met 1930	Asn Pro Thr Glu 1919 Ala	Thr Arg 1900 Asn 5	Met 1885 Asp ) Ile Glu	1870 Asp Val Leu	Ala Ala His Lys Gly 1935	Asp Gln Ile Lys 1920 Asn
Thr Ala Tyr 1909 Ala Phe	Ser Val Gln 189 Arg Arg Thr	Thr  Val 1879 Asp  Leu Gln	Arg 1866 Phe Arg Ile Lys Ala 194	1849 Ser Tyr Cys Ser Arg 1920 Tyr	Gly Asp His Glu 1910 Met 5	Gly Ser Arg 1899 Arg Leu Lys	Asp 1880 Ile Thr Gly	Gly 1865 Trp Gly Val Asp Gln 1945	Val Asn Gln Glu Met 193 Thr	Asn Pro Thr Glu 1919 Ala 0	Thr Arg 1900 Asn Ile Arg	Met 1885 Asp Ile Glu	1870 Asp Val Leu Gly Leu 1950	Ala His Lys Gly 1935 Phe	Asp Gln Ile Lys 1920 Asn Asp
Thr Ala Tyr 1900 Ala Phe Met	Ser Val Gln 189 Arg Arg Thr	Thr  Val  1879 Asp  Leu  Gln  Thr  Leu  1959	Arg 1866 Phe S Arg Ile Lys Ala 1946 Glu	1849 Ser Tyr Cys Ser Arg 1922 Tyr Glu	Gly Asp His Glu 1910 Met Fhe	Gly Ser Arg 1899 Arg Leu Lys Ser	Asp 1880 Ile 5 Thr Gly Gln Ser 1960	Gly 1865 Trp Gly Val Asp Gln 1945 Ser	Val Asn Gln Glu Met 193 Thr Ser	Asn Pro Thr Glu 1919 Ala O Ile	Thr Arg 1900 Asn Ile Arg Pro	Met 1885 Asp Ile Glu Glu Ser 1965	1870 Asp Val Leu Gly Leu 1950 Ala	Ala His Lys Gly 1935 Phe Pro	Asp Gln Ile Lys 1920 Asn S Asp Glu
Thr Ala Tyr 1900 Ala Phe Met Glu	Ser Val Gln 1899 Arg Thr Pro Glu 197	Thr  Val  1875 Asp  Leu  Gln  Thr  Leu  1955 Glu	Arg 1860 Phe S Arg Ile Lys Ala 1940 Glu 5	1849 Ser Tyr Cys Ser Arg 1929 Tyr Glu Thr	Gly Asp His Glu 1910 Met Fhe Pro	Gly Ser Arg 1899 Arg Leu Lys Ser Ala 1979	Val Asp 1880 Ile Thr Gly Gln Ser 1960 Ser	Gly 1869 Trp Gly Val Asp Gln 1949 Ser	Val Asn Gln Glu Met 1930 Thr Ser Gln	Asn Pro Thr Glu 1915 Ala O Ile Val	Thr Arg 1900 Asn Ile Arg Pro His 198	Met 1885 Asp Ile Glu Glu Ser 1965 Ile	1870 Asp Val Leu Gly Leu 1950 Ala	Ala His Lys Gly 1935 Phe Pro Glu	Asp Gln Ile Lys 1920 Asn Gln Gln Gln
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Thr Ala Tyr 1900 Ala Phe Met Glu Ala 198	Ser Val Gln 189 Arg Arg Thr Pro Glu 197 Leu 5	Thr  Val  1879 Asp  Leu  Gln  Thr  Leu  1959 Glu  Cys	Arg 1860 Phe S Arg Ile Lys Ala 1940 Glu S Glu Arg	1849 Ser Tyr Cys Ser Arg 1920 Tyr Glu Thr	Gly Asp His Glu 1910 Met Fhe Pro Val Glu 199	Gly Ser Arg 1899 Arg C Leu Lys Ser Ala 1979 Asp	Asp 1880 Ile 5 Thr Gly Gln Ser 1960 Ser 5	Gly 1869 Trp Gly Val Asp Gln 1949 Ser Lys	Val Asn Glu Met 1930 Thr Ser Gln Asp	Asn Pro Thr Glu 1915 Ala O Ile Val Thr	Thr Arg 1900 Asn Ile Arg Pro His 1980 Arg	Met 1885 Asp Ile Glu Glu Ser 1965 Ile	1870 Asp Val Leu Gly Leu 1950 Ala Leu Ala	Ala His Lys Gly 1935 Phe Pro Glu Thr	Asp Gln Ile Lys 1920 Asn 6 Asp Glu Gln 2000 Asp
Thr Ala Tyr 1909 Ala Phe Met Glu Ala 198 Ala	Ser Val Gln 189 Arg Arg Asn Thr Pro Glu 197 Leu Lys	Thr Val 1879 Asp Leu Gln Thr Leu 1959 Glu Cys Ala	Arg 1866 Phe 3 Arg Ile Lys Ala 1946 Glu Arg Glu Arg	1849 Ser Tyr Cys Ser Arg 1922 Tyr Glu Thr Ala Gln 200	Gly Asp His Glu 1910 Met Fhe Pro Val Glu 1999 Val	Gly Ser Arg 1899 Leu Lys Ser Ala 1979 Asp 0	Asp 1880 Ile 5 Thr Gly Gln Ser 1960 Ser 5	Gly 1869 Trp Gly Val Asp Gln 1949 Ser Lys Glu Leu	Val Asn Gln Glu Met 193 Thr Ser Gln Asp Ala 201	Asn Pro Thr Glu 1919 Ala O Ile Val Thr Ile 1999 Glu O	Arg 1900 Asn Ile Arg Pro His 1980 Arg Fhe	Met 1885 Asp Ile Glu Ser 1965 Ile O	Asp Val Leu Gly Leu 1950 Ala Leu Ala Glu	Ala His Lys Gly 1935 Phe Oflu Thr Asn 2015	Asp Gln Ile Lys 1920 Asn 6 Asp Glu Gln 2000 Asp

			2020	ı				2025					2030		
) en	Glu	Glu	Met	Ser	Arg	Ala	Glu	Gln	Glu	Ile .	Ala .	Ala	Leu	Val	Glu
		2025					2040	)				2 U 4 D			
Gln	Leu	Thr	Pro	Ile	Glu	Arg	Tyr	Ala	Met	Lys	Phe :	Leu	Glu	Ala	Ser
	2050					2055	5				2060				
Leu	Glu	Glu	Val	Ser	Arg	Glu	Glu	Leu	Lys	Gln	Ala	Glu	Glu	Gln	Val
					2070	1				2075					2000
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Leu	Pro	Gln	Glu	Glu	Glu	Glu	Gly	Pro	Gly	Ala	Gly	Asp	Glu	Ser	Ser
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Cys	Gly	Thr	Gly	Gly	Gly	Thr	His	Arg	Arg	Ser	Lys	Lys	Ala	Lys	Ala
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Pro	Glu	Arg	Pro	Gly	Thr	Arg	Val	Ser	Glu	Arg	Leu	Arg	GIY	ALA	Arg
	2221	`				つりてい	5				2140				
Ala	Glu	Thr	Gln	Gly	Ala	Asn	His	Thr	Pro	Val	ire	ser	Ald	nis	2160
214	5				2150	)	_	_		2155		212	7 ~~	Glu	
Thr	Arg	Ser	Thr			Pro	Pro	Arg	Cys	Ser	PIO	Ala	Arg	217	,
				216	5_	_		<b>3</b>	2170		D×0	בומ	Ser		
Val	Pro	Arg			Pro	Arg	Pro	Arg	PIO	Thr	PIO	AIG	2190	)	
			218	0		1	D	2189	D~0	t/a l	Ser	Δla			Pro
Ala	Ala			Ala	Leu	Val	Pro	vai	PIO	Val	361	220	5		•
		219	5_	•	D	T10	220	U T1A	T.011	Pro	Val			Leu	Pro
Ile			Pro	Asn	PIO	221	Z 711T	116	DCu		2220	)			
_	221	0	D	D=0	Ca*	Gln	J Tle	Pro	Pro	Cys			Pro	Ala	Cys
		Pro	Pro	PIO	223	0	110			2235	5				2240
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				224	5				225	0				223	<b>-</b>
7 l a	Gln	Thr	Cvs	Leu	Val	Thr	Pro	Ser	Ser	Pro	Leu	Leu	Leu	Gly	Pro
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Pro	Ser	Val	Pro	Ile	Ser	Ala	Ser	Val	Thr	Asn	Leu	Pro	Leu	Gly	Leu
		227	_				228	0				220	<b>ə</b>		
Arq	Pro	Glu	Ala	Glu	Leu	Cys	Ala	Gln	Ala	Leu	Ala	Ser	Pro	Glu	Ser
	220	^				229	15				230	U			
Leu	Glu	Leu	Ala	Ser	· Val	Ala	Ser	Ser	Glu	Thr	_Ser	Ser	Leu	Ser	Leu 2320
	-				221	Λ				231	<b>&gt;</b>				2320
Val	. Pro	Pro	Lys			Lev	Pro	Va1	Ala	vaı	GIU	116	Dea	233	Val
				232	25	_	mb		233	.U . 11 -	Dro	Ser	Leu		
Ser	Glu	Lys			ı Ser	Let	i Inr	234	- 261	ATG	FIU	501	235	0	Leu
_	_		234	-1	- D		. (1)	۷۵۹ Glnر	ے در آی	Gln	Glu	Ala			Ser
Gli	ı Ala			. 116	Pro	ASI	236	. GIII		. 01		236	5	-	
		239	)	. mb.	- 1 av	. Th	- Val	, C Leu	Pro	Glu	Glv	Glu	Glu	Leu	Pro
Ala			, tur	. 1111	. הפנ	23	. 14. 15				238	0			
	237	/U		c (3)	, Sei	25 251	, Glv	. Leu	Glu	ı Leu			Ser	Ala	Ala
~ ~ ~					230	0.6				239	15				2400
238	r Nev	. G1:	, pr	) [.e.	ı Glr	ı Glı	ı Pro	Leu	Glu	ı Ala	Asp	Arg	Thr	Ser	Glu
				241	าร				241	LU				242	-
G) i	ום. ד	ı Th	r Glu	ı Al	a Lys	s Th	r Pro	o Thr	Ser	. Ser	Pro	Glu	. Lys	Pro	Gln
			24	20				242	?5				24.	, ,	
Gli	u Le	ı Va	l Th	r Al	a Glı	ı Va	l Ala	a Ala	Pro	Ser	Thr	Sei	Ser	: Sei	r Ala
		24	2 5				244	40				444	<b>.</b> .		
	_			- 61	. G1	, Dr	n Se	- Dre	Ala	a Arc	Pro	Pro	o Arg	Arg	g Arg

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Thr	Ser	Ala	Asp	Val	Glu	Ile	Arg	Gly	Gln	Gly	Thr	Gly	Arg	Pro	Gly
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				2485	;				2490	)				2495	
Thr	Val	Val	Glu	Glu	Lys	Glu	Leu	Val	Arg	Arg	Arg	Arg	Gln	Gln	Arg
			2500	)				2505	•				2510	)	
Glv	Ala	Ala	Ser	Thr	Leu	Val	Pro	Gly	Val	Ser	Glu	Thr	Ser	Ala	Ser
_		2515	5				2520	)				2525	5		
Pro	Glv	Ser	Pro	Ser	Val	Arg	Ser	Met	Ser	Gly	Pro	Glu	Ser	Ser	Pro
110	2530					2535					2540	)			
Pro	Tle	Glv	Gly	Pro	Cvs	Glu	Ala	Ala	Pro	Ser	Ser	Ser	Leu	Pro	Thr
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Pro	Pro	Gln	Gln	Pro	Phe	Ile	Ala	Arg	Arg	His	Ile	Glu	Leu	Gly	Val
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Thr	Glv	Glv	Gly	Ser	Pro	Glu	Asn	Gly	Asp	Gly	Ala	Leu	Leu	Ala	Ile
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Thr	Pro	Pro	Ala	Val	Lys	Arq	Arg	Arg	Gly	Arg	Pro	Pro	Lys	Lys	Asn
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Ara	Ser	Pro	Ala	Asp	Ala	Gly	Arg	Gly	Val	Asp	Glu	Ala	Pro	Ser	Ser
	2610	)				261	5				2620	0			
Thr	Leu	Lvs	Gly	Lys	Thr	Asn	Gly	Ala	Asp	Pro	Val	Pro	Gly	Pro	Glu
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Thr	Leu	Ile	Val	Ala	Asp	Pro	Val	Leu	Glu	Pro	Gln	Leu	Ile	Pro	Gly
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Pro	Gln	Pro	Leu	Gly	Pro	Gln	Pro	Val	His	Arg	Pro	Asn	Pro	Leu	Leu
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Lys	Asn	Pro	Pro	Ser	Pro	Arg	Pro	Ser	Gln	Leu	Pro	Val	Leu	Asp	Arg
		275	5				276	0				276	5		
Asp	Ser	Thr	Ser	Val	Leu	Glu	Ser	Cys	Gly	Leu	Gly	Arg	Arg	Arg	Gln
	277	0				277	5				278			_	-•
Pro	Gln	Gly	Gln	Gly	Glu	Ser	Glu	Gly	Ser			Asp	Glu	Asp	Gly
278	5				279					279					2800
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Asp	Asp	Leu	Asp	Leu	Ala	Asp	Ser	Gly	Pro	Gly	Gly	Leu	Glu	Leu	Thr
		283	5				284	0				284	5		
Pro	Pro	Val	Val	Ser	Leu	Thr	Pro	Lys	Leu	Arg	Ser	Thr	Arg	Leu	Arg
	285	0				285	5				286	0			
Pro	Gly	Ser	Leu	Val	Pro	Pro	Leu	Glu	Thr	Glu	Lys	Leu	Pro	Arg	Lys
286	5				287	0				287	5				2880
Arg	Ala	Gly	, Ala	Pro	Val	. Gly	, Gly	Ser	Pro	GIy	Leu	Ala	Lys	Arg	Gly

2890 2885 Arg Leu Gln Pro Pro Ser Pro Leu Gly Pro Glu Gly Ser Val Glu Glu 2905 2900 Ser Glu Ala Glu Ala Ser Gly Glu Glu Glu Glu Gly Asp Gly Thr Pro 2925 2920 2915 Arg Arg Arg Pro Gly Pro Arg Arg Leu Val Gly Thr Thr Asn Gln Gly 2940 2935 Asp Gln Arg Ile Leu Arg Ser Ser Ala Pro Pro Ser Leu Ala Gly Pro 2955 2950 Ala Val Ser His Arg Gly Arg Lys Ala Lys Thr 2970 2965 <210> 1991 <211> 3102 <212> DNA <213> Homo sapiens <400> 1991 nntcctttgc aggetttttt ececettece eceteceeg aceteetttg egtacaagaa gtgaagagtt tgggggaaaa gggacacatg ctctgcttct gcagagaaat gettetcagg 120 gggttggact gttctgtaaa cccccactcc ccgccagcgc aggtgttttg aactccagct gagggcctgc tggctgctgg gaaactccta ggcagcagag gcccacgact acttcctcct gagtgccgtt cagtggcctg tgtccaggct ctgaagggct ccaagaagct ggtgctgtct gtgtactcag cagggcgcat ccctgggggc tacgtcacca accacatcta cacctgggtg gacccgcagg gccgcagcat ctccccaccc tcgggcctgc cccagcccca cggtggtgcc ctgaggcagc aggagggtga ccggaggagc accetgcace teetgcaagg aggggatgag aaaaaggtga acctggtgct gggggacggc cggtccctgg gcctcacgat ccgtggggga getgagtacg geettggeat ttacateact ggegtggace caggetetga ageagaagge 600 agegggetea aggttgggga ceagatteta gaagtgaatg ggeggagett teteaacate ctacacgacg aggetgtcag getgettaag teatetegge aceteateet gacagtgaag 660 gacgtcggga ggctgcccca tgcccgcacc actgtggacg agaccaagtg gatcgccagt teceggatea gggagaceat ggegaacteg geagggttte ttggegatet cacaacagaa ggaataaaca agccaggatt ttacaagggc ccagccggct cccaggtgac cctgagcagc ctggggaacc agacacgagt gctgctggag gagcaggctc ggcacctgct gaacgagcag gaacacacca ccatggccta ctacctggat gagtaccgtg gcggcagcgt ctctgtggag gecetegica tggecetgit caagetgete aacacecaeg ccaagitete acteetete

1080

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2100		caaaccgcct			
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2340		cgccgaggcc			
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2520		tggcaggaag			
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Val Phe Gln Gln Gly Met Leu Val Pro Glu Leu Thr Ala Val Glu Asn
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Arg Tyr Ala Thr Gln Trp Leu Glu Ser Met Gly Leu Gly Gly Met Glu
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Ile Ala Arg Ser Gln Val Ile Asp Pro Ser Ile Val Phe Ala Asp Glu
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Pro Thr Gly Ala Leu Asp Ser Ala Thr Ala Val Glu Val Met Ala Ile
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Leu Leu Ser Ala Thr Thr Gly Arg Gly Arg Thr Leu Val Val Thr
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Gly Leu Phe Gly Pro Gly Thr Gly Ser Phe Leu Met Phe Leu Phe Val
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Gln Gly Gln Asn Asp Ala Ala Gln Val Val Gly Thr Asn Val Lys Leu
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                             120
         115
 Thr Glu Glu Leu Leu Val Glu Glu Ile Glu Lys Leu Arg Met Lys Thr
                                             140
                         135
 Glu Glu Glu Ala Arg Thr His Thr Glu Ile Glu Met Phe Leu Arg Lys
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 Glu Gln Gln Val Gly Pro His Ser Phe Ser Met Leu
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<210> 2005
<211> 354
<212> DNA
<213> Homo sapiens
<400> 2005
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caagtgaact gattgacccc cagccctgtg gggaatttca ggggggtatt gtcttggtca
teggagteag gggtggeett tnagecaagg etgeattaae ttttgggaaa agaaatggga
agcccgccgt gtcacagggt ctcctgaccg gctgggtagg gtttggcctt atcttacagc
cagtgctgtg tttgctcaga tggacgcaca tggaaaccag gctaggatca tcttcccaat
gtctactccc tgctttggtc tgtcctgaaa acaattgcaa agacattgtg gctg
354
<210> 2006
<211> 111
<212> PRT
<213> Homo sapiens
<400> 2006
Met Phe Pro Cys Leu His Val Gly Phe Leu Ala Ser Gln Pro Ser Glu
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Leu Ile Asp Pro Gln Pro Cys Gly Glu Phe Gln Gly Gly Ile Val Leu
                                 25
Val Ile Gly Val Arg Gly Gly Leu Xaa Ala Lys Ala Ala Leu Thr Phe
                             40
Gly Lys Arg Asn Gly Lys Pro Ala Val Ser Gln Gly Leu Leu Thr Gly
                                             60
                         55
Trp Val Gly Phe Gly Leu Ile Leu Gln Pro Val Leu Cys Leu Leu Arg
                                         75
                     70
Trp Thr His Met Glu Thr Arg Leu Gly Ser Ser Ser Gln Cys Leu Leu
                                     90
                 85
Pro Ala Leu Val Cys Pro Glu Asn Asn Cys Lys Asp Ile Val Ala
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 <210> 2007
 <211> 335
 <212> DNA
 <213> Homo sapiens
 <400> 2007
 nnacgcgtgc catgtgcatg tgtatatgca tgtatgtgcg tatgtgtgt catgtgtgtg
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 tgtgcgtatg tgtgcatann catgtgcaca catgtacaca cgtgtacatg ttcatgcatg
 tgcacgtgca tatgtgtaca cgtgtatgcg tgtacatgta tgagcatatg tacacgtgtg
 240
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gatgtgtgtg tatgcatgtg tgtgtgcaca gatatgcctt ttcctttcat acaggctggt
ttgagtattg ctggtaggca gggacaactt tccgt
335
<210> 2008
<211> 111
<212> PRT
<213> Homo sapiens
<400> 2008
Xaa Arg Val Pro Cys Ala Cys Val Tyr Ala Cys Met Cys Val Cys Val
                                                        15
1
Cys Met Cys Val Cys Ile Cys Met Cys Val Cys Ala Cys Thr Cys Xaa
                                25
            20
Cys Ile Cys Val Cys Met His Ala Cys Ala Tyr Val Cys Ile Xaa Met
                                                45
                            40
Cys Thr His Val His Thr Cys Thr Cys Ser Cys Met Cys Thr Cys Ile
Cys Val His Val Tyr Ala Cys Thr Cys Met Ser Ile Cys Thr Arg Val
Asp Val Cys Val Cys Met Cys Val Cys Thr Asp Met Pro Phe Pro Phe
                                    90
Ile Gln Ala Gly Leu Ser Ile Ala Gly Arg Gln Gly Gln Leu Ser
                                105
            100
<210> 2009
<211> 288
<212> DNA
<213> Homo sapiens
<400> 2009
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gcagctccgg tcgccctggc catcggggca ggattcgtgc cggtgcgcaa gccggggaag
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gtocaccagt acgocatcaa gccggggtcg cgcgtcatca tcgtcgac
288
<210> 2010
<211> 96
<212> PRT
<213> Homo sapiens
<400> 2010
Asp Ile Thr Pro Leu Leu Ala Asn Pro Asn Gly Phe Ser Ala Ala Ile
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1
Glu Glu Leu Val Leu Arg Ser Pro Arg Asp Ile Asp Val Val Gly
                                25
Met Glu Ala Arg Gly Phe Leu Phe Ala Ala Pro Val Ala Leu Ala Ile
```

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40
        35
Gly Ala Gly Phe Val Pro Val Arg Lys Pro Gly Lys Leu Pro Gly Gln
                        55
Val Tyr Ser Glu Thr Phe Ala Met Glu Tyr Gly Glu Glu Thr Leu Thr
                                        75
                    70
Val His Gln Tyr Ala Ile Lys Pro Gly Ser Arg Val Ile Ile Val Asp
<210> 2011
<211> 384
<212> DNA
<213> Homo sapiens
<400> 2011
ctcgagcagt ctctgcatgt taacaccccc gtacggcccg taaagcataa ccgtctccga
cttgccgccg cctgcgtgct tcgctaggcg gccggtgaac ccacctgagg gccggatgta
gaagtcaacg gtggacgacg ggttggaggg tttgttgatt ggcgagtggg gaagcgagca
gattgtaaat tggtagaacg gggaacagag attagtcaca atgacgagaa cgacaacaga
atgttgattg ttatagccat ctctggagga gagggaaaaa gccaggtatc tagacagcga
aagcaaatgt gagccgaggg gacagtgccg tccttcgttc ctcggcaact cccacgaggc
accttccatt ctgtgggcag aatt
<210> 2012
<211> 123
<212> PRT
<213> Homo sapiens
 <400> 2012
Met Glu Gly Ala Ser Trp Glu Leu Pro Arg Asn Glu Gly Arg His Cys
                                     10
                 5
Pro Leu Gly Ser His Leu Leu Ser Leu Ser Arg Tyr Leu Ala Phe Ser
Leu Ser Ser Arg Asp Gly Tyr Asn Asn Gln His Ser Val Val Leu
                             40
Val Ile Val Thr Asn Leu Cys Ser Pro Phe Tyr Gln Phe Thr Ile Cys
                         55
 Ser Leu Pro His Ser Pro Ile Asn Lys Pro Ser Asn Pro Ser Ser Thr
                                         75
                     70
 Val Asp Phe Tyr Ile Arg Pro Ser Gly Gly Phe Thr Gly Arg Leu Ala
                                     90
                 85
 Lys His Ala Gly Gly Gly Lys Ser Glu Thr Val Met Leu Tyr Gly Pro
                                 105
             100
 Tyr Gly Gly Val Asn Met Gln Arg Leu Leu Glu
                             120
         115
 <210> 2013
 <211> 309
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<212> DNA
<213> Homo sapiens
<400> 2013
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geettgeteg eccaggteca cageacacaa acceeggtgt acetggecaa tateaatgee
120
gataaccaga eggttatege gggeagegae ggggeaatga aageagtege eaatetggte
cgcggcaacg gcgtcgccaa acgcttggcc gtcagcgtgc cgtcccattg tgcgctgctg
gaaaaacctg ccgaaacact ggcccaagcc ttcgctgaag tgacgctgaa aacgccgncn
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nnncccncn
309
<210> 2014
<211> 103
<212> PRT
<213> Homo sapiens
<400> 2014
Ala Tyr Pro His Gly Tyr Gly Met Thr Ala Leu Ile Gly Pro Asp Leu
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Ser Thr Val Glu Ala Leu Leu Ala Gln Val His Ser Thr Gln Thr Pro
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Val Tyr Leu Ala Asn Ile Asn Ala Asp Asn Gln Thr Val Ile Ala Gly
                             40
Ser Asp Gly Ala Met Lys Ala Val Ala Asn Leu Val Arg Gly Asn Gly
                                             60
                         55
Val Ala Lys Arg Leu Ala Val Ser Val Pro Ser His Cys Ala Leu Leu
                     70
Glu Lys Pro Ala Glu Thr Leu Ala Gln Ala Phe Ala Glu Val Thr Leu
                                     90
 Lys Thr Pro Xaa Xaa Pro Xaa
             100
 <210> 2015
 <211> 329
 <212> DNA
 <213> Homo sapiens
 <400> 2015
 acgcgtgcca tgctcggtat ccgccgccac caccccgtct ttgggaccgg cgagttcacc
 gatctaggcg ggccggacat ggcagtgatg teetteetae gtcacaacga gcacgaaacg
 gtectgtgcc tggctaatct ctccgatact gagcggacgg ttgcccttca ccttccacaa
 ttcgcgggcg tggcgggctc ttctctcatc catggtcagg acgcgcaacc agtaaaagct
 gacggaacac tgtccgtacc gttgtggcca tatggctatc gatggctgca gatgtccggt
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300

PCT/US00/08621

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gaggagaggt catgaccgct tgggaagac
 329
 <210> 2016
 <211> 104
 <212> PRT
 <213> Homo sapiens
 <400> 2016
 Thr Arg Ala Met Leu Gly Ile Arg Arg His His Pro Val Phe Gly Thr
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                                     10
                                                          15
 Gly Glu Phe Thr Asp Leu Gly Gly Pro Asp Met Ala Val Met Ser Phe
                                 25
                                                      30
 Leu Arg His Asn Glu His Glu Thr Val Leu Cys Leu Ala Asn Leu Ser
 Asp Thr Glu Arg Thr Val Ala Leu His Leu Pro Gln Phe Ala Gly Val
                         55
 Ala Gly Ser Ser Leu Ile His Gly Gln Asp Ala Gln Pro Val Lys Ala
                     70
                                         75
 Asp Gly Thr Leu Ser Val Pro Leu Trp Pro Tyr Gly Tyr Arg Trp Leu
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                                     90
Gln Met Ser Gly Glu Glu Arg Ser
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 <210> 2017
<211> 457
<212> DNA
<213> Homo sapiens
<400> 2017
accaaggica gattcatggc cictificci ccagcggcca gcaggaaacg cggggagccc
ttgatcatct ccgacatcaa gaaaggcagc gtggcacaca ggacgggcac cctggagcca
ggcgacaagc tactggccat tgacaatatc cgcctggaca actgccccat ggaggacgcc
gtgcaaatcc tgcggcagtg cgaggacctg gtgaagctga agatccggaa ggacgaggac
aactetgatg agetggagae cacaggtgee gteagttaca cagtggaget gaagegetae
gggggtcccc tgggcatcac catttcgggc acggaggaac cttttgaccc cattttcatc
teaggeetee ccaaacgtgg cetggetgag aggactggtg ccatceagtg ggggaacege
420
ttcggaccat aacaacgtta ttctcaggga cggacca
457
<210> 2018
<211> 143
<212> PRT
<213> Homo sapiens
<400> 2018
Thr Lys Val Arg Phe Met Ala Ser Phe Pro Pro Ala Ala Ser Arg Lys
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5
                                    10
Arg Gly Glu Pro Leu Ile Ile Ser Asp Ile Lys Lys Gly Ser Val Ala
            20
                                25
                                                    30
His Arg Thr Gly Thr Leu Glu Pro Gly Asp Lys Leu Leu Ala Ile Asp
        35
                            40
Asn Ile Arg Leu Asp Asn Cys Pro Met Glu Asp Ala Val Gln Ile Leu
                                            60
                        55
Arg Gln Cys Glu Asp Leu Val Lys Leu Lys Ile Arg Lys Asp Glu Asp
                                        75
                    70
65
Asn Ser Asp Glu Leu Glu Thr Thr Gly Ala Val Ser Tyr Thr Val Glu
                                    90
                85
Leu Lys Arg Tyr Gly Gly Pro Leu Gly Ile Thr Ile Ser Gly Thr Glu
                                105
                                                    110
            100
Glu Pro Phe Asp Pro Ile Phe Ile Ser Gly Leu Pro Lys Arg Gly Leu
                            120
                                                125
       115
Ala Glu Arg Thr Gly Ala Ile Gln Trp Gly Asn Arg Phe Gly Pro
<210> 2019
<211> 483
<212> DNA
<213> Homo sapiens
<400> 2019
cgcgtcggcg acgattttat cctcggggtt cgttataccg ccgatgaatg tctcgagaac
ggcaccggca aggcggaagg catcgaaatc tccagacggc tgaaggagag cggcctgatc
120
gactatetea aegteateag gggacatate gacacegate eeggeetgae egacgteate
180
cccattcagg gcatggcgag cgcgccgcat cttgatttcg caggcgaaat ccgcgcggcg
accagettee cegtetteea tgeegecaaa atteaggatg tegecacege ceggeatgeg
attgccgccg gcaaggtcga catgatcggc atgacccgcg cccacatgac cgatccgcat
360
atogtocgca agatoatgga aaaacaggag gaggacatoo goocctgcgt cggcgccaat
tattgtcttq atcgcattta tcaaggcggc ctcgccttct gcattcacaa tgcggcaacc
480
ggc
483
<210> 2020
<211> 161
<212> PRT
<213> Homo sapiens
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Arg Val Gly Asp Asp Phe Ile Leu Gly Val Arg Tyr Thr Ala Asp Glu
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1
Cys Leu Glu Asn Gly Thr Gly Lys Ala Glu Gly Ile Glu Ile Ser Arg
            20
                                25
Arg Leu Lys Glu Ser Gly Leu Ile Asp Tyr Leu Asn Val Ile Arg Gly
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45
                           40
        35
His Ile Asp Thr Asp Pro Gly Leu Thr Asp Val Ile Pro Ile Gln Gly
                                          60
Met Ala Ser Ala Pro His Leu Asp Phe Ala Gly Glu Ile Arg Ala Ala
                   70
Thr Ser Phe Pro Val Phe His Ala Ala Lys Ile Gln Asp Val Ala Thr
Ala Arg His Ala Ile Ala Ala Gly Lys Val Asp Met Ile Gly Met Thr
                                                  110
                               105
           100
Arg Ala His Met Thr Asp Pro His Ile Val Arg Lys Ile Met Glu Lys
                           120
Gln Glu Glu Asp Ile Arg Pro Cys Val Gly Ala Asn Tyr Cys Leu Asp
                                          140
                       135
Arg Ile Tyr Gln Gly Gly Leu Ala Phe Cys Ile His Asn Ala Ala Thr
                                       155
                   150
145
Gly
<210> 2021
<211> 797
<212> DNA
<213> Homo sapiens
<400> 2021
ngaatteggt cactggetta acteggagea cagetteace acgaeceatg acaaggaagg
gtttctcctg agaagggcca gcaagtgtgt ttaaggacat cetecetect gteeetgeag
ccctcctccc tcagtactcg cgagactacg aaaacacgtg ctgaaatgga cacccgctcc
gggagccagt gttccgtcac cccagaagcc atactcaata atgaaaagct ggtcttgccg
240
ccccgcatct ccagagtgaa cggctggtcg ttacccctgc actacttcca ggtggtgacc
 300
 tgggctgtct tcgtgggcct ttcctcggcc accttcggga tcttcattcc cttcctgcct
 cacgcgtgga aatacatcgc ctatgtggta tccttttcat cgtggcatgg tctaagcggg
 aggggtteet ggaggaccet gegatggace tggetgtggg gtetgggcca tggetgeecg
 gtggcaccag tcacctgtcc tgggccagac tatgtccccc gagcctgcag gtgggcccag
 gggagttccg gagagggaat ctgtcaggag ggacagcagc cccctggcgt ggcgcaggac
 660
 cegecetget ggcageette egetaaaate eetgegeage attttgeaca tggecageee
 ctttctcctt gcccctggtg ccaaggagga acagcgccat gccccgcagg tcggcagcct
 gcgtttccat gccaagc
 797
 <210> 2022
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<211> 135
<212> PRT
<213> Homo sapiens
<400> 2022
Met Asp Thr Arg Ser Gly Ser Gln Cys Ser Val Thr Pro Glu Ala Ile
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1
Leu Asn Asn Glu Lys Leu Val Leu Pro Pro Arg Ile Ser Arg Val Asn
            20
Gly Trp Ser Leu Pro Leu His Tyr Phe Gln Val Val Thr Trp Ala Val
                            40
Phe Val Gly Leu Ser Ser Ala Thr Phe Gly Ile Phe Ile Pro Phe Leu
Pro His Ala Trp Lys Tyr Ile Ala Tyr Val Val Ser Phe Ser Ser Trp
                                        75
                    70
His Gly Leu Ser Gly Arg Gly Ser Trp Arg Thr Leu Arg Trp Thr Trp
                85
Leu Trp Gly Leu Gly His Gly Cys Pro Val Ala Pro Val Thr Cys Pro
                                105
Gly Pro Asp Tyr Val Pro Arg Ala Cys Arg Trp Ala Gln Trp Pro Leu
                            120
        115
Met Val Leu Ala Ser Pro Gly
    130
<210> 2023
<211> 462
<212> DNA
<213> Homo sapiens
<400> 2023
naateteega egateeetge egacgtgete geeggtgete teaageagge taaggagget
cgcaccgcga tccttgaggt gatgaacgag gccatcgatt ctcccgatga aatggccccg
actgetecge geateattae egtecacate ecagtggaca agateggtga ggteategge
cccaagggca agatgattaa ccagattcag gacgacactg gcgccaatat ctctattgag
gacgatggca cgattttcat cggggctgat aacggagatt cggccgagtc tgcccgttcg
atgatcaacg cgatcgctaa cccacagatg cccgaggtcg gtgagcgtta cctcggcacc
gtcgtcaaga cgacgagctt tggcgctttc gtctctctgc tgcccggcaa ggatggtctg
ttgcacatct ccaagatgcg tgaccttaac gacggtaaac gc
<210> 2024
<211> 154
<212> PRT
<213> Homo sapiens
<400> 2024
Xaa Ser Pro Thr Ile Pro Ala Asp Val Leu Ala Gly Ala Leu Lys Gln
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10
                 5
Ala Lys Glu Ala Arg Thr Ala Ile Leu Glu Val Met Asn Glu Ala Ile
                                25
Asp Ser Pro Asp Glu Met Ala Pro Thr Ala Pro Arg Ile Ile Thr Val
His Ile Pro Val Asp Lys Ile Gly Glu Val Ile Gly Pro Lys Gly Lys
                                            60
                        55
Met Ile Asn Gln Ile Gln Asp Asp Thr Gly Ala Asn Ile Ser Ile Glu
                    70
Asp Asp Gly Thr Ile Phe Ile Gly Ala Asp Asn Gly Asp Ser Ala Glu
                                    90
                85
Ser Ala Arg Ser Met Ile Asn Ala Ile Ala Asn Pro Gln Met Pro Glu
                                105
            100
Val Gly Glu Arg Tyr Leu Gly Thr Val Val Lys Thr Thr Ser Phe Gly
                                                125
                            120
Ala Phe Val Ser Leu Leu Pro Gly Lys Asp Gly Leu Leu His Ile Ser
                        135
    130
Lys Met Arg Asp Leu Asn Asp Gly Lys Arg
                    150
145
<210> 2025
<211> 872
<212> DNA
<213> Homo sapiens
<400> 2025
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tgctctctgc agagaataag tgcacacagg ttggtgtctt ctgaccgaga gccctcctga
120
agggaggtet gtaceteete ceteatetea ttttacacaa ggegaeaggt cagaggeeag
ggtgggacga gagcgaggga gcactgtctc tggcagcagc acttgccact ccacaatgtg
gagaccagaa cggcacccca gagagcacgg gggaaatggc tcatctttaa aacaatggca
gaagaaatcc agccaaggtc acttttcctg tgtgagcatg tttaaggcca gagagtggct
acttctctgc ctcctgcagc tccctcagtg tggcttggag gagttggcga agcttccaga
acacgetgga ggetgetete egggtgttee caetggggae eecagggtet geacatteet
gcaccgcctc ctgtaactgc agctgaagct ggaaagagac cgcagagctc ttgagaggcg
cggaaaacca atggcgaaat attttgtcac agatgacctg caggttgttg tttacgcgct
gegeteegea tttgttgaet egtaaateae atettgaaaa acagteaaag aaattgeagt
 cttcatctcc tgtgcagttt tgctcaagga tttccctcat tttaggttca aaaaaggcca
 tgtccacatc aatagccacc actgtgaagt cgctccggat ggcaaagttt tccggcttga
 tgtcgcagag gtggaggcgg tgggtacagt ccctgtcgaa atggttcccc atgtccaaga
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840

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agetgagtge gaggeeetg atggeeetgg ee
872
<210> 2026
<211> 157
<212> PRT
<213> Homo sapiens
<400> 2026
Met Gly Asn His Phe Asp Arg Asp Cys Thr His Arg Leu His Leu Cys
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Asp Ile Lys Pro Glu Asn Phe Ala Ile Arg Ser Asp Phe Thr Val Val
                                25
Ala Ile Asp Val Asp Met Ala Phe Phe Glu Pro Lys Met Arg Glu Ile
Leu Glu Gln Asn Cys Thr Gly Asp Glu Asp Cys Asn Phe Phe Asp Cys
                        55
Phe Ser Arg Cys Asp Leu Arg Val Asn Lys Cys Gly Ala Gln Arg Val
                    70
Asn Asn Asn Leu Gln Val Ile Cys Asp Lys Ile Phe Arg His Trp Phe
                                    90
Ser Ala Pro Leu Lys Ser Ser Ala Val Ser Phe Gln Leu Gln Leu Gln
                                105
            100
Leu Gln Glu Ala Val Gln Glu Cys Ala Asp Pro Gly Val Pro Ser Gly
                            120
Asn Thr Arg Arg Ala Ala Ser Ser Val Phe Trp Lys Leu Arg Gln Leu
                        135
Leu Gln Ala Thr Leu Arg Glu Leu Gln Glu Ala Glu Lys
                    150
<210> 2027
<211> 721
<212> DNA
<213> Homo sapiens
<400> 2027
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gacaaatata gtgtaaaagg cgcaatggaa tttgtatagt gaaggagatt ctctagtccc
agggttgtaa tgtcacttct gtctaattca ttacagaatt acagaatcaa atcatgttag
ccctagaaga aactgcagat cattttgttc aatcttctca ttatatagga aaggaaattt
gagggccagt gcaatggttt gccaaggtca cacaactagt tagtggaagg atccaggcat
totaattoot ttotttoact aatacatttg gactgotota cagaattact totgtotgat
actatccact ttgaagagta gctagcatat agtagccatt tacttttggc tcaattaaaa
gcaaacattt ttgggacaaa atcaggcttt cctgattact tcttagataa cagagcccac
acagtattaa aacatgcagc ctttctttat gcaaaaagat tgaatatgga gccacttgaa
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540

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tettaaaett cagtetgeag etataaecaa tateateaga agttataeae aattggeaaa
600
agaatagett attetgeeca aataettgte cagteactag gateatttea ettttttgaa
taccatttgc tttggggagg gaagtattgc cagaccgtga attcattatt acctctgatc
а
721
<210> 2028
<211> 114
<212> PRT
<213> Homo sapiens
<400> 2028
Met Asn Ser Arg Ser Gly Asn Thr Ser Leu Pro Lys Ala Asn Gly Ile
                 5
Gln Lys Ser Glu Met Ile Leu Val Thr Gly Gln Val Phe Gly Gln Asn
                                25
            20
Lys Leu Phe Phe Cys Gln Leu Cys Ile Thr Ser Asp Asp Ile Gly Tyr
                             40
        35
Ser Cys Arg Leu Lys Phe Lys Ile Gln Val Ala Pro Tyr Ser Ile Phe
                         55
Leu His Lys Glu Arg Leu His Val Leu Ile Leu Cys Gly Leu Cys Tyr
                                         75
                     70
65
Leu Arg Ser Asn Gln Glu Ser Leu Ile Leu Ser Gln Lys Cys Leu Leu
                                     90
Leu Ile Glu Pro Lys Val Asn Gly Tyr Tyr Met Leu Ala Thr Leu Gln
                                 105
 Ser Gly
 <210> 2029
 <211> 8028
 <212> DNA
 <213> Homo sapiens
 <400> 2029
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 gaggcggcgg tggtggctga gtccgtggtg gcagaggcga aggcgacagc tctaggggtt
 ggcaccggcc ccgagaggag gatgcgggtc cggatagggc tgacgctgct gctgtgtgcg
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 gattccaaga ctactttgac atcagatgag tcagtaaagg accatactac tgcaggcaga
 gtagttgctg gtcaaatatt tcttgattca gaagaatctg aattagaatc ctctattcaa
 gaagaggaag acagcctcaa gagccaagag ggggaaagtg tcacagaaga tatcagcttt
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_			•	100 Thr		т10	Clu	Glv	Thr	Ala	His	Glv	Glu		Cys	His
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AL	<b>d</b> .	АБР	GIU	bys	165	0-7		-1-		170					175	
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                                            60
                        55
Ala Pro Asn Gly Val Pro Tyr Phe Ser Asp Ala Val Phe Ile Phe Leu
                                        75
Asp Ser Phe Tyr Cys Leu Val Phe Ser Leu His Asn Pro Tyr Cys Ser
                                    90
                85
Leu Tyr
<210> 2037
<211> 327
<212> DNA
<213> Homo sapiens
<400> 2037
acgcgtgaag ggaagggga gaccccggca gaaatggaga aatgggggcg cacacagacg
ggaagagtga ggttggagtg cctttcccgc gctcatcttc cgtccccact ccacgcccag
caaatccaaa caccgcggcc tctggtggcc cgggcttcca tttcccctgg aggggcaagg
gegttteete tteegeecaa eeggggeget gageggeggg aacageggeg ggggetttgt
ggtcccgggg ggtccgagtg tgtgtcaggg gctggggcgg gggatgggcg cggcccctgg
gtatccctca cggtcctggt tcatgag
327
<210> 2038
<211> 98
<212> PRT
<213> Homo sapiens
<400> 2038
Met Glu Lys Trp Gly Arg Thr Gln Thr Gly Arg Val Arg Leu Glu Cys
                                     10
Leu Ser Arg Ala His Leu Pro Ser Pro Leu His Ala Gln Gln Ile Gln
```

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25
Thr Pro Arg Pro Leu Val Ala Arg Ala Ser Ile Ser Pro Gly Gly Ala
                            40
        35
Arg Ala Phe Pro Leu Pro Pro Asn Arg Gly Ala Glu Arg Arg Glu Gln
                                            60
                        55
Arg Arg Gly Leu Cys Gly Pro Gly Gly Ser Glu Cys Val Ser Gly Ala
                    70
Gly Ala Gly Asp Gly Arg Gly Pro Trp Val Ser Leu Thr Val Leu Val
                                    90
His Glu
<210> 2039
<211> 307
<212> DNA
<213> Homo sapiens
<400> 2039
accggtgate cactetgega aageggeege gagegaageg ttettggtet tettegagat
cgcgatgtat tgcccggaaa acagcggctt gatgccgtca ttgagaggct ctgggccaac
accggtacgg gcatatgcct gggcggcatt cttttggatg ttgcgaagaa aggacgcatt
cggcgtgccg aaagccaggg atccttcacc gtagaccttg gaccgatgga ggcccccggc
aatcgagtcc ttcgaaattc ccccttggca tacatgtcgg ccatcgtcgt cagccagagt
aacgcgt
307
<210> 2040
<211> 94
<212> PRT
<213> Homo sapiens
<400> 2040
Met Ala Asp Met Tyr Ala Lys Gly Glu Phe Arg Arg Thr Arg Leu Pro
                                     10
Gly Ala Ser Ile Gly Pro Arg Ser Thr Val Lys Asp Pro Trp Leu Ser
                                 25
            20
Ala Arg Arg Met Arg Pro Phe Phe Ala Thr Ser Lys Arg Met Pro Pro
                             40
        35
Arg His Met Pro Val Pro Val Leu Ala Gln Ser Leu Ser Met Thr Ala
                                             60
                         55
Ser Ser Arg Cys Phe Pro Gly Asn Thr Ser Arg Ser Arg Arg Arg Pro
                                         75
                     70
 Arg Thr Leu Arg Ser Arg Pro Leu Ser Gln Ser Gly Ser Pro
                 85
 <210> 2041
 <211> 348
 <212> DNA
 <213> Homo sapiens
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<400> 2041
nneeggegat geagggatte geeegegatg egetegaace eggegegggg ggegtteete
gecagettee tgeegttege cagaegeate geegaggegg gggtgegeaa ttegetegee
cagetggteg ccaagetgae eetgeeegge atgeeegaca tetaceaggg etgegagatg
tgggacetca geetggtega eegggacaat egeegeeeeg tegaetaega gaeaegegae
geggecetgg ceggetgggt egegaceeeg ceggaggaac gegeegegge getgegeace
ctgctgacgg attggcgcag cggcgcggtc aagctggccg tgacgcgt
348
<210> 2042
<211> 116
<212> PRT
<213> Homo sapiens
<400> 2042
Xaa Arg Arg Cys Arg Asp Ser Pro Ala Met Arg Ser Asn Pro Ala Arg
                                     10
 1
Gly Ala Phe Leu Ala Ser Phe Leu Pro Phe Ala Arg Arg Ile Ala Glu
                                 25
Ala Gly Val Arg Asn Ser Leu Ala Gln Leu Val Ala Lys Leu Thr Leu
                             40
        35
Pro Gly Met Pro Asp Ile Tyr Gln Gly Cys Glu Met Trp Asp Leu Ser
                         55
Leu Val Asp Arg Asp Asn Arg Arg Pro Val Asp Tyr Glu Thr Arg Asp
                                         75
                     70
Ala Ala Leu Ala Gly Trp Val Ala Thr Pro Pro Glu Glu Arg Ala Ala
                 85
Ala Leu Arg Thr Leu Leu Thr Asp Trp Arg Ser Gly Ala Val Lys Leu
                                 105
 Ala Val Thr Arg
         115
 <210> 2043
 <211> 712
 <212> DNA
 <213> Homo sapiens
 <400> 2043
 gatetgaegg tetegaetaa geetgaecat teegaggtea eegaegeega eettgeegte
 gaagattegg tgegeagage cetgtetega atgegetece gggatgeegt ceaeggegag
 gaacgtgccg ataccgggga tggaccccgc cggtggatca ttgatccgat cgacggcact
 gcgaattttc tgcgtgggt cccagtgtgg gccaccctca ttgccctcag cgtcgaggac
 cagattgtcg catctgtggt ctctgctcct gccctcaagc gacgctggtg ggcagcccgt
 300
```

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ggctcaggag catggtcggg caaatccctg gcctcagcga caccgatcca cgtctcgaat
360
gtgcgcaatc ttgccgacgc attcttgtcc tactcttcgc tgcacggatg ggtcgagagc
ggacgagggc acgggttcgg tgaactcatg cggtcggtgt ggcggacccg agccttcggc
480
gatttctggt cttacatgat ggtggcagaa ggtgtcgtcg atgtggcatg cgagccggaa
ctcagcctgc acgacatggc cgccctcgac gctatcgtca ccgaggcggg cggtaagttc
accegetctcg atggcaaaga cegeccegteg totegegaate ctotegegete gaategette
cttcatgacc aggccctagc catggtccag cctcaggagt gagcaccgat cg
712
<210> 2044
<211> 233
<212> PRT
<213> Homo sapiens
<400> 2044
Asp Leu Thr Val Ser Thr Lys Pro Asp His Ser Glu Val Thr Asp Ala
                                     10
Asp Leu Ala Val Glu Asp Ser Val Arg Arg Ala Leu Ser Arg Met Arg
            20
Ser Arg Asp Ala Val His Gly Glu Glu Arg Ala Asp Thr Gly Asp Gly
Pro Arg Arg Trp Ile Ile Asp Pro Ile Asp Gly Thr Ala Asn Phe Leu
                         55
Arg Gly Val Pro Val Trp Ala Thr Leu Ile Ala Leu Ser Val Glu Asp
                     70
Gln Ile Val Ala Ser Val Val Ser Ala Pro Ala Leu Lys Arg Arg Trp
                                     90
Trp Ala Ala Arg Gly Ser Gly Ala Trp Ser Gly Lys Ser Leu Ala Ser
                                 105
             100
Ala Thr Pro Ile His Val Ser Asn Val Arg Asn Leu Ala Asp Ala Phe
                             120
         115
Leu Ser Tyr Ser Ser Leu His Gly Trp Val Glu Ser Gly Arg Gly His
                                             140
                         135
Gly Phe Gly Glu Leu Met Arg Ser Val Trp Arg Thr Arg Ala Phe Gly
                                         155
145
                     150
Asp Phe Trp Ser Tyr Met Met Val Ala Glu Gly Val Val Asp Val Ala
                                     170
Cys Glu Pro Glu Leu Ser Leu His Asp Met Ala Ala Leu Asp Ala Ile
                                 185
             180
Val Thr Glu Ala Gly Gly Lys Phe Thr Gly Leu Asp Gly Lys Asp Gly
                             200
 Pro Trp Ser Gly Asn Ala Leu Ala Ser Asn Gly Phe Leu His Asp Gln
                                              220
                         215
 Ala Leu Ala Met Val Gln Pro Gln Glu
                     230
 225
 <210> 2045
```

<211> 406

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<212> DNA
<213> Homo sapiens
<400> 2045
nnttggacac cggcgactat gccgccaccg cacggatcaa tcgcggaccc agggcagggg
atgcgccgga tgggcgacgg tgatggaccg ggcgctggac ctgggcggtc gcttcgacga
cantacagge titggeegag gegggttgga agaaaceggt caaceggtgg titggeeeeg
catcaatgcc cagaaccaga agcettgcgc attegteeca ggeegttcaa ggeegatgge
gagategteg egatgaetgg egaeggtgte aaegaegeee eetegeteaa ggeggeeeat
atcggtgtcg ccatggacaa acgcggcacc gacgtcgcgc gcgaggcttc cgccatggtc
ctgctcgagg atgattttgg atcgatcgtg cagtcggtcc ggctcg
<210> 2046
<211> 135
<212> PRT
<213> Homo sapiens
<400> 2046
Xaa Trp Thr Pro Ala Thr Met Pro Pro Pro His Gly Ser Ile Ala Asp
Pro Gly Gln Gly Met Arg Arg Met Gly Asp Gly Asp Gly Pro Gly Ala
                                 25
             20
Gly Pro Gly Arg Ser Leu Arg Arg Xaa Tyr Arg Leu Trp Pro Arg Arg
                             40
 Val Gly Arg Asn Arg Ser Thr Gly Gly Leu Ala Pro His Gln Cys Pro
                         55
 Glu Pro Glu Ala Leu Arg Ile Arg Pro Arg Pro Phe Lys Ala Asp Gly
                                         75
                     70
 Glu Ile Val Ala Met Thr Gly Asp Gly Val Asn Asp Ala Pro Ser Leu
 Lys Ala Ala His Ile Gly Val Ala Met Asp Lys Arg Gly Thr Asp Val
                                 105
 Ala Arg Glu Ala Ser Ala Met Val Leu Leu Glu Asp Asp Phe Gly Ser
             100
                                                 125
                             120
         115
 Ile Val Gln Ser Val Arg Leu
     130
 <210> 2047
 <211> 796
  <212> DNA
  <213> Homo sapiens
  <400> 2047
 aagetttgga acgagacece tgagetetgg gtteageece gaggaageee ageaacagga
  tgaggaattt gagaagaaga ttccaagtgt ggaagacagc cttggagagg gcagcaggga
```

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tgctggccgg ccaggagaga gaggatccgg gggcttgttc agtcctagca ctgcccacgt
gccggatggg gcactcgggc agagagacca gagcagctgg caaaacagtg atgctagcca
240
ggaggtggga gggcatcagg agagacagca ggcaggggct cagggccctg gcagtgctga
300
cctggaagat ggggagatgg gaaagcgagg ctgggtcggt gagtttagcc tcagtgttgg
cccccagcga gaggcagcat ttagcccagg gcagcaggac tggagccggg acttctgcat
cgaggccagt gagaggagct atcagtttgg catcattggc aacgacagag tgagtggtgc
480
tggctttagc ccttctagca agatggaagg tggtcacttt gtgcctcctg ggaagaccac
agetggeteg gtggaetgga etgaecaget gggteteagg aacttggaag tgteeagetg
tgtgggttct gggggctcga gcgaggccag ggagagtgcc gtgggacaga tgggctggtc
aggtggcctg agcttgagag acatgaacct gaccggctgt ttggaaagtg gagggtctga
caaagatttg gctgag
796
<210> 2048
<211> 160
<212> PRT
<213> Homo sapiens
<400> 2048
Met Gly Lys Arg Gly Trp Val Gly Glu Phe Ser Leu Ser Val Gly Pro
 1
Gln Arg Glu Ala Ala Phe Ser Pro Gly Gln Gln Asp Trp Ser Arg Asp
                               25
Phe Cys Ile Glu Ala Ser Glu Arg Ser Tyr Gln Phe Gly Ile Ile Gly
Asn Asp Arg Val Ser Gly Ala Gly Phe Ser Pro Ser Ser Lys Met Glu
                                           60
Gly Gly His Phe Val Pro Pro Gly Lys Thr Thr Ala Gly Ser Val Asp
                                       75
Trp Thr Asp Gln Leu Gly Leu Arg Asn Leu Glu Val Ser Ser Cys Val
                85
Gly Ser Gly Gly Ser Ser Glu Ala Arg Glu Ser Ala Val Gly Gln Met
                               105
           100
Gly Trp Ser Gly Gly Leu Ser Leu Arg Asp Met Asn Leu Thr Gly Cys
                           120
Leu Glu Ser Gly Gly Ser Glu Glu Pro Gly Gly Ile Gly Ile Gly Glu
                                           140
                       135
Lys Asp Trp Thr Ser Asp Val Asn Val Lys Ser Lys Asp Leu Ala Glu
                                                        . 160
                    150
145
<210> 2049
<211> 516
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<212> DNA
<213> Homo sapiens
<400> 2049
cgcgtcgctt acggtgcgct gaataccagc ctgctggcgc tggcggtcag cttcgcgtcg
ctgttcctcg ggatagtgtt cgggctgatg ccacgtctga tgtgcggggt gattgaactg
gecaacgete eccegecaat egecetggge etgttagtag tegecattag eggecettea
gectaeggtg cegeetgtge ggtgatgttg gteagttggg eteegetgge egeeeattgt
gettegttgt tggeggaage eegeacgeag eectatatee geatgttgee ggtattgge
greggeegat ggegeaeget gaeceaetae etgetgeegg egetetetge teecetgetg
cgccacgcca tgttgcgtct gccgggcatt gcgctggcgc tggcggcctt gggttttttt
420
ggtcttgggc cgcagccacc cagtgcagaa tgggggctgg tgctggcgga aggcatgcct
480
tatctcgaac gggcgccctg gggagtcctg gcaccg
516
<210> 2050
<211> 172
<212> PRT
<213> Homo sapiens
<400> 2050
Arg Val Ala Tyr Gly Ala Leu Asn Thr Ser Leu Leu Ala Leu Ala Val
                                     10
Ser Phe Ala Ser Leu Phe Leu Gly Ile Val Phe Gly Leu Met Pro Arg
                                 25
Leu Met Cys Gly Val Ile Glu Leu Ala Asn Ala Pro Pro Pro Ile Ala
                             40
Leu Gly Leu Leu Val Val Ala Ile Ser Gly Pro Ser Ala Tyr Gly Ala
                                             60
                         55
Ala Cys Ala Val Met Leu Val Ser Trp Ala Pro Leu Ala Ala His Cys
                                         75
                     70
Ala Ser Leu Leu Ala Glu Ala Arg Thr Gln Pro Tyr Ile Arg Met Leu
                                     90
Pro Val Leu Gly Val Gly Arg Trp Arg Thr Leu Thr His Tyr Leu Leu
                                                     110
                                 105
            100
 Pro Ala Leu Ser Ala Pro Leu Leu Arg His Ala Met Leu Arg Leu Pro
                             120
 Gly Ile Ala Leu Ala Leu Ala Leu Gly Phe Phe Gly Leu Gly Pro
                                             140
                         135
 Gln Pro Pro Ser Ala Glu Trp Gly Leu Val Leu Ala Glu Gly Met Pro
                     150
 Tyr Leu Glu Arg Ala Pro Trp Gly Val Leu Ala Pro
                                     170
                 165
 <210> 2051
 <211> 411
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<212> DNA
<213> Homo sapiens
<400> 2051
gagcaaaact atcgttctac cggcaatatt ctgaaaagtg ccaaccaact tatttcgaat
aatagtgatc gtctcggtaa gaatttatgg accgacggtg aaatggggga gccagtaggt
atttatgcag catttaatga attagatgag gcaaaatttg tggcgtctca aatccaaaat
tgggtagatg atggtgggga attagatgat tgtgctgttt tatatcgtag taatagccaa
tetegtgtta ttgaagaage ettgattegt tgecaaatte ettategaat ttatggeggg
atgcgattct tcgaacgcca agaaattaaa gatgcgttgg catatttacg tttaattaat
aatcgtcaag atgatgccgc atttgagcgt gtgattaata cgcctacgcg t
411
<210> 2052
<211> 137
<212> PRT
<213> Homo sapiens
<400> 2052
Glu Gln Asn Tyr Arg Ser Thr Gly Asn Ile Leu Lys Ser Ala Asn Gln
 1
Leu Ile Ser Asn Asn Ser Asp Arg Leu Gly Lys Asn Leu Trp Thr Asp
                                25
            20
Gly Glu Met Gly Glu Pro Val Gly Ile Tyr Ala Ala Phe Asn Glu Leu
                            40
Asp Glu Ala Lys Phe Val Ala Ser Gln Ile Gln Asn Trp Val Asp Asp
                        55
Gly Gly Glu Leu Asp Asp Cys Ala Val Leu Tyr Arg Ser Asn Ser Gln
                                         75
Ser Arg Val Ile Glu Glu Ala Leu Ile Arg Cys Gln Ile Pro Tyr Arg
                85
Ile Tyr Gly Gly Met Arg Phe Phe Glu Arg Gln Glu Ile Lys Asp Ala
                                105
            100
Leu Ala Tyr Leu Arg Leu Ile Asn Asn Arg Gln Asp Asp Ala Ala Phe
                            120
        115
Glu Arg Val Ile Asn Thr Pro Thr Arg
    130
                        135
<210> 2053
<211> 287
<212> DNA
<213> Homo sapiens
<400> 2053
nccatggaag cottcaatot tgtaagagaa agtgaacago tgttttccat atgccaaato
ccgctcctct gctggatcct gtgtaccagt ctgaagcaag agatgcagaa aggaaaagac
```

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ctggccctga cctgccagag cactacctct gtgtactcct ctttcgtctt taacctgttc
180
acacctgagg gtgccgaggg cccgactccg caaacccagc accagctgaa ggccctgtgc
tecetggetg cagagggtat gtggacagac acatttgagt tttgtga
<210> 2054
<211> 79
<212> PRT
<213> Homo sapiens
<400> 2054
Ile Cys Gln Ile Pro Leu Leu Cys Trp Ile Leu Cys Thr Ser Leu Lys
Gln Glu Met Gln Lys Gly Lys Asp Leu Ala Leu Thr Cys Gln Ser Thr
                                25
Thr Ser Val Tyr Ser Ser Phe Val Phe Asn Leu Phe Thr Pro Glu Gly
                            40
        35
Ala Glu Gly Pro Thr Pro Gln Thr Gln His Gln Leu Lys Ala Leu Cys
                        55
                                            60
Ser Leu Ala Ala Glu Gly Met Trp Thr Asp Thr Phe Glu Phe Cys
                    70
<210> 2055
<211> 298
<212> DNA
<213> Homo sapiens
<400> 2055
nnacgcgttg ttatgaacaa tgacggtgtc ctctaccccg atacctgcgt gggtactgat
teccacacca ccatggaaaa tggtettgge attetggget ggggegtegg tggtattgaa
gccgaggctg ctatgcttgg ccagcccatc tccatgctta tcccccgtgt tgttggcttt
aaacttactg gccaaacaca gccgggtgtc accgctacag atgttgttct taccattact
gatatgette gecageatgg tgtgggtgga aaattegggg aattetatgg gggaageg
298
<210> 2056
<211> 99
<212> PRT
<213> Homo sapiens
<400> 2056
Xaa Arg Val Val Met Asn Asn Asp Gly Val Leu Tyr Pro Asp Thr Cys
                                     10
Val Gly Thr Asp Ser His Thr Thr Met Glu Asn Gly Leu Gly Ile Leu
                                 25
             20
Gly Trp Gly Val Gly Gly Ile Glu Ala Glu Ala Ala Met Leu Gly Gln
                             40
Pro Ile Ser Met Leu Ile Pro Arg Val Val Gly Phe Lys Leu Thr Gly
```

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60
                        55
Gln Thr Gln Pro Gly Val Thr Ala Thr Asp Val Val Leu Thr Ile Thr
                                        75
                    70
Asp Met Leu Arg Gln His Gly Val Gly Gly Lys Phe Gly Glu Phe Tyr
                                    90
Gly Gly Ser
<210> 2057
<211> 569
<212> DNA
<213> Homo sapiens
<400> 2057
acgcgtcccg acagtaccga ctataacgga ggaaactatc aggaacggta taaaatttta
gcagaaattc gtaaggctct tgaagacgga gatcgccaaa aagccaaacg attagctgaa
120
caaaatctag ttggaccaaa caacgcccag tatggtcgtt atctagcctt tggtgatatc
180
ttcatggtct tcaataacca gaaaaagggg ctggatacag ttacagacta tcaccgtggt
ttggatatca cagaagccac tactacaact tcttacaccc aagatggaac gacctttaaa
agagaaacct totcaagtta cootgatgat gttactgtta ctcacttgac ccaaaaaggg
gacaaaaaac ttgattttac agtttggaat agcttaacag aagatttact tgctaacgga
gactactcag cggaatattc taactacaag agtggccatg ttacgacaga cccaaatggt
atcctactaa aaggtacagt caaagataat ggcctccagt tcgcatccta tctaggaatt
aaaacggacg gaaaagttac tgttcatga
569
<210> 2058
 <211> 128
 <212> PRT
 <213> Homo sapiens
 <400> 2058
Met Val Phe Asn Asn Gln Lys Lys Gly Leu Asp Thr Val Thr Asp Tyr
 His Arg Gly Leu Asp Ile Thr Glu Ala Thr Thr Thr Thr Ser Tyr Thr
                                 25
 Gln Asp Gly Thr Thr Phe Lys Arg Glu Thr Phe Ser Ser Tyr Pro Asp
                             40
 Asp Val Thr Val Thr His Leu Thr Gln Lys Gly Asp Lys Lys Leu Asp
                         55
 Phe Thr Val Trp Asn Ser Leu Thr Glu Asp Leu Leu Ala Asn Gly Asp
                                         75
                     70
 Tyr Ser Ala Glu Tyr Ser Asn Tyr Lys Ser Gly His Val Thr Thr Asp
 Pro Asn Gly Ile Leu Leu Lys Gly Thr Val Lys Asp Asn Gly Leu Gln
```

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100
                                105
Phe Ala Ser Tyr Leu Gly Ile Lys Thr Asp Gly Lys Val Thr Val His
                            120
<210> 2059
<211> 644
<212> DNA
<213> Homo sapiens
<400> 2059
gaattcgtgc caccgtgcca atacttcgcc acgcaacaga gtgccgtcag cggattgggc
agcaatcgac ctgtaggact cagccatgat cgactgggca tcctcgtata gtcgcgatgc
cgcaaccgcc tgcgcttcca agcctgcagc gacgtaagag gccctctcac acactgaacc
gategeteca gacaacgtgg aagegataac etegegtege ttetgetgat tetgggeeaa
qctcqacaaq aagaaccgca gaggggcgac ggcctggtca gggagcgcac cttcagcgtt
300
cgtcttggtc tccgggacag caaaaagcgg ggaatcagcc aggccacgct ccgtcatgag
360
teggeegagg teegeeggta ceteteteat ggetteeaca ggaacgeggt cacacaccac
cgcgatcgac gcgtgcctct cttgagcctc gttgaggaaa tcccacggca cagcgtcagc
gtagcgggct gctgaggtga caaagatcca cagatccgcg gcctggagca actgagccgc
cagatcacga ttgcgggtca ccacagagtc gatgtccggg gcatcgagga tggccaaacc
tegeggaate ettgacteeg egacgagetg caaactegae gegt
644
<210> 2060
<211> 130
<212> PRT
<213> Homo sapiens
<400> 2060
Met Arg Glu Val Pro Ala Asp Leu Gly Arg Leu Met Thr Glu Arg Gly
Leu Ala Asp Ser Pro Leu Phe Ala Val Pro Glu Thr Lys Thr Asn Ala
                                25
Glu Gly Ala Leu Pro Asp Gln Ala Val Ala Pro Leu Arg Phe Phe Leu
                            40
Ser Ser Leu Ala Gln Asn Gln Gln Lys Arg Arg Glu Val Ile Ala Ser
                                            60
Thr Leu Ser Gly Ala Ile Gly Ser Val Cys Glu Arg Ala Ser Tyr Val
                    70
Ala Ala Gly Leu Glu Ala Gln Ala Val Ala Ala Ser Arg Leu Tyr Glu
                                    90
Asp Ala Gln Ser Ile Met Ala Glu Ser Tyr Arg Ser Ile Ala Ala Gln
Ser Ala Asp Gly Thr Leu Leu Arg Gly Glu Val Leu Ala Arg Trp His
```

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125
                            120
       115
Glu Phe
   130
<210> 2061
<211> 481
<212> DNA
<213> Homo sapiens
<400> 2061
gttaacctgg taaggagage gacacaggaa ggtgcagggg ttgccatggt gtggccccag
60
atgctgtgat tacgcgccag ccccgtcaca ccgtacgggt ggtaggactg ggcaaagaag
120
acgccgccac ctggatgcac tgaggtgtgc acagccacgt ggagatgatg ctgggggctc
acggtgactc tcaggaggcc ctggcctggc ctatctggag ccttctctgt gaaatgaggc
tggtaacgcc cactagcagg gttgtagggg acatggatct gtggccacct cctcaagggt
tgccacacgc accaggtcct gactgggagt ccggccccca gggcctgtgg atggctggcc
tgggcccage ctccgcccc aagggtgctg gcacctggca tgtgcccgac agttggggcc
ggctggtggg aaggtgtgtg tcaggtggcg gagcctcggt gccaggatct cactcacgcg
480
t
481
<210> 2062
<211> 133
<212> PRT
<213> Homo sapiens
 <400> 2062
Met Pro Gly Ala Ser Thr Leu Gly Gly Gly Gly Trp Ala Gln Ala Ser
His Pro Gln Ala Leu Gly Ala Gly Leu Pro Val Arg Thr Trp Cys Val
             20
 Trp Gln Pro Leu Arg Arg Trp Pro Gln Ile His Val Pro Tyr Asn Pro
                             40
 Ala Ser Gly Arg Tyr Gln Pro His Phe Thr Glu Lys Ala Pro Asp Arg
                         55
 Pro Gly Gln Gly Leu Leu Arg Val Thr Val Ser Pro Gln His His Leu
                                         75
                     70
 His Val Ala Val His Thr Ser Val His Pro Gly Gly Val Phe Phe
                                     90
                 85
 Ala Gln Ser Tyr His Pro Tyr Gly Val Thr Gly Leu Ala Arg Asn His
                                                     110
                                 105
             100
 Ser Ile Trp Gly His Thr Met Ala Thr Pro Ala Pro Ser Cys Val Ala
                                                 125
                             120
         115
 Leu Leu Thr Arg Leu
     130
```

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<210> 2063
<211> 419
<212> DNA
<213> Homo sapiens
<400> 2063
geeggegeeg tegagegegt geettteaat ategaggeee aagacatggt getgeteate
geggacacca atgeecegea catgetttee gaeggecaat aegeeteeeg eeggggeate
ategacgecg tecaatetge egeeggttge tecateegeg agatetegaa tgeggtggae
tttgccgcca ccgtcaatcc cgccgaggcg gaactctatc gccgccgcgt gcaccacgtg
gtggaagaaa ccaaccggac cctagatgcc gctaccgcgc tggcatcttc cgatctagat
acatteegge ggettatgeg egagageeac atetecetge gegaeettta tgaggteace
actecggage tegactecgt ttttaccgcg geeggegage tgggegeteg catgannan
419
<210> 2064
<211> 139
<212> PRT
<213> Homo sapiens
<400> 2064
Ala Gly Ala Val Glu Arg Val Pro Phe Asn Ile Glu Ala Gln Asp Met
Val Leu Leu Ile Ala Asp Thr Asn Ala Pro His Met Leu Ser Asp Gly
                                 25
Gln Tyr Ala Ser Arg Arg Gly Ile Ile Asp Ala Val Gln Ser Ala Ala
                             40
Gly Cys Ser Ile Arg Glu Ile Ser Asn Ala Val Asp Phe Ala Ala Thr
                                             60
Val Asn Pro Ala Glu Ala Glu Leu Tyr Arg Arg Val His His Val
                                         75
                     70
Val Glu Glu Thr Asn Arg Thr Leu Asp Ala Ala Thr Ala Leu Ala Ser
                                     90
 Ser Asp Leu Asp Thr Phe Arg Arg Leu Met Arg Glu Ser His Ile Ser
                                 105
 Leu Arg Asp Leu Tyr Glu Val Thr Thr Pro Glu Leu Asp Ser Val Phe
                             120
 Thr Ala Ala Gly Glu Leu Gly Ala Arg Met Xaa
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 <210> 2065
 <211> 598
 <212> DNA
 <213> Homo sapiens
 <400> 2065
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attcaggagg tcatagetga gacggccgcc gtccaacgtt ggaatcccga cgccgacgtg
cttctcgaac tcggtggtga ggatgccaag atcacctacc ttaagccggt ccccgaacag
cgcatgaatg gttcgtgtgc tggtggcacc ggtgccttca tcgaccagat ggctaccctg
ctgcacaccg acactcccgg cctcaatgac ctcgcatccc gagccaagac catccatccg
ategeetege getgtggtgt ttttgecaag teegaeette ageeeeteat taacgaggga
gecegecaeg aggatetgge tgeeteggte etgeaggetg tegecaetea gtgeattgee
ggcctggcat gtggtcgccc gattcgaggt aaggtcatct tccttggcgg tccgcttcac
tttatgccaa gtttgcgaga cgctttctcg cgcgtcctcg acggtaaggt tgacgcgt
598
<210> 2066
<211> 199
<212> PRT
<213> Homo sapiens
<400> 2066
Ala Gly Ala Met Ala Ser Leu Leu Ala Asp Ala Ala Asp Ala Leu Pro
                                    10
Gly Ala Lys Val Arg Ala Thr Val Thr Gly Ser Ala Gly Leu Gly Thr
                                25
            20
Ala Glu Ala Leu Gly Leu Thr Phe Ile Gln Glu Val Ile Ala Glu Thr
                            40
Ala Ala Val Gln Arg Trp Asn Pro Asp Ala Asp Val Leu Leu Glu Leu
                                            60
                        55
Gly Gly Glu Asp Ala Lys Ile Thr Tyr Leu Lys Pro Val Pro Glu Gln
                    70
                                        75
Arg Met Asn Gly Ser Cys Ala Gly Gly Thr Gly Ala Phe Ile Asp Gln
                                    90
Met Ala Thr Leu Leu His Thr Asp Thr Pro Gly Leu Asn Asp Leu Ala
                                105
            100
Ser Arg Ala Lys Thr Ile His Pro Ile Ala Ser Arg Cys Gly Val Phe
                            120
        115
Ala Lys Ser Asp Leu Gln Pro Leu Ile Asn Glu Gly Ala Arg His Glu
                                            140
                        135
Asp Leu Ala Ala Ser Val Leu Gln Ala Val Ala Thr Gln Cys Ile Ala
                                        155
Gly Leu Ala Cys Gly Arg Pro Ile Arg Gly Lys Val Ile Phe Leu Gly
                                     170
                165
Gly Pro Leu His Phe Met Pro Ser Leu Arg Asp Ala Phe Ser Arg Val
                                                     190
                                185
            180
Leu Asp Gly Lys Val Asp Ala
        195
<210> 2067
<211> 366
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<212> DNA
<213> Homo sapiens
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tactteggtt tegagatece gggegageca ggeaagtatt tetaegtgtg getggaegeg
ccgatcggct acatggccag tttcaagaac ctgtgcgacc gcacgccgga gctggacttc
gatgetttet gggeeaagga etecacegee gagetgtace attteategg caaggacate
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360
accggt
366
<210> 2068
<211> 122
<212> PRT
 <213> Homo sapiens
 Phe Gln Gln Met Leu Gln Thr Trp Thr Arg Ser Gly Thr Leu Gln Glu
 <400> 2068
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                  5
 Ala Val Ala Asn Lys Ile Ala Glu Trp Leu Asp Ala Asp Leu Gln Gln
                                 25
 Trp Asp Ile Ser Arg Asp Ala Pro Tyr Phe Gly Phe Glu Ile Pro Gly
                             40
 Glu Pro Gly Lys Tyr Phe Tyr Val Trp Leu Asp Ala Pro Ile Gly Tyr
                                             60
 Met Ala Ser Phe Lys Asn Leu Cys Asp Arg Thr Pro Glu Leu Asp Phe
                                         75
                     70
 Asp Ala Phe Trp Ala Lys Asp Ser Thr Ala Glu Leu Tyr His Phe Ile
                                     90
 Gly Lys Asp Ile Val Asn Phe His Ala Leu Phe Trp Pro Ala Met Leu
                                  105
             100
 Glu Gly Ser Gly Tyr Arg Lys Pro Thr Gly
                              120
         115
  <210> 2069
  <211> 280
  <212> DNA
  <213> Homo sapiens
  cctagagagg atggtggaga ctgtgcgtgt gcagggtgtt ccggaacctt ccctgggatg
  catggggcct cgccgcaggc catctctcca gacctgggct caccctgccc ctgtgctgtt
  geetttgget ggaatteeae eecageette ttgeeteaag aacgeeette eecetteaga
```

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tereargge acaggeeceg terrectaaa eggggreaga geeceeagra areargacaa
agaccetete etegateaag etttggteaa geteetaeee
280
<210> 2070
<211> 90
<212> PRT
<213> Homo sapiens
<400> 2070
Met Val Glu Thr Val Arg Val Gln Gly Val Pro Glu Pro Ser Leu Gly
                                    10
                 5
Cys Met Gly Pro Arg Arg Pro Ser Leu Gln Thr Trp Ala His Pro
                                                     30
                                25
Ala Pro Val Leu Leu Pro Leu Ala Gly Ile Pro Pro Gln Pro Ser Cys
                            40
Leu Lys Asn Ala Leu Pro Pro Ser Asp Leu Met Gly Thr Gly Pro Val
                        55
Phe Leu Asn Gly Val Arg Ala Pro Ser Asn His Asp Lys Asp Pro Leu
                                        75
                    70
Leu Asp Gln Ala Leu Val Lys Leu Leu Pro
                85
<210> 2071
<211> 399
<212> DNA
<213> Homo sapiens
<400> 2071
acgcgtgtcc agcagactta gaaagcaggt tcctcttgtc atacagcacg ttaacatagc
tgacgaggcc tgggtgtctt catcagtact gtgatgactc tttcaccttt gacttcagat
getggegett tttacttttt gtgccaaact ctacacatga aacacttttg gaataactac
agacatgact ttctttatct ggggaaaagg agggcattaa accagattag gggctgggag
gggaggttgt caggggatga gctgctcctg aggaagaggc agagatcaag cttcactcag
cagctggatt ctcacctagt ttatagactg aaatcctgca aggtggttac aacagtgaac
aatatgttca tacataaaga ctctaccctc aggtgatca
399
 <210> 2072
 <211> 100
 <212> PRT
 <213> Homo sapiens
 <400> 2072
Met Thr Leu Ser Pro Leu Thr Ser Asp Ala Gly Ala Phe Tyr Phe Leu
 Cys Gln Thr Leu His Met Lys His Phe Trp Asn Asn Tyr Arg His Asp
```

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30
                                25
            20
Phe Leu Tyr Leu Gly Lys Arg Arg Ala Leu Asn Gln Ile Arg Gly Trp
                            40
Glu Gly Arg Leu Ser Gly Asp Glu Leu Leu Leu Arg Lys Arg Gln Arg
                        55
Ser Ser Phe Thr Gln Gln Leu Asp Ser His Leu Val Tyr Arg Leu Lys
                                        75
Ser Cys Lys Val Val Thr Thr Val Asn Asn Met Phe Ile His Lys Asp
Ser Thr Leu Arg
            100
<210> 2073
<211> 339
<212> DNA
<213> Homo sapiens
<400> 2073
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cettecteca cetteaagee ageageggag geetgagtee tteteatgee atetetetgt
totototot gootootoot coacactgaa ggaccootgt gatcacactg goocooccac
cggatgaccc aggataatcc atctccctgt ttgaaggtcg gctgattagc aaccttcatt
ccatctgcct ccttcattcc ccctggccat gtaatgggat tcacagcttc tggggattag
gacatggaca tettgtggeg ggggeataat tetgtegae
<210> 2074
<211> 85
<212> PRT
<213> Homo sapiens
<400> 2074
Met Lys Glu Ala Asp Gly Met Lys Val Ala Asn Gln Pro Thr Phe Lys
                                    10
Gln Gly Asp Gly Leu Ser Trp Val Ile Arg Trp Gly Gly Gln Cys Asp
                                25
His Arg Gly Pro Ser Val Trp Arg Arg Gln Glu Arg Glu Gln Arg
Asp Gly Met Arg Arg Thr Gln Ala Ser Ala Ala Gly Leu Lys Val Glu
                        55
                                            60
Glu Gly Ala Thr Ser Gln Gly Thr Gln Ala Ala Ser Arg Ser Trp Lys
                    70
Gly Thr Glu Val Asp
                85
<210> 2075
<211> 481
<212> DNA
<213> Homo sapiens
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<400> 2075
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atcetgageg etectgeeca actgggeetg etgaggaaga teegeetetg geacgacage
180
cgtgggcctt ccccaggctg gttcatcagc cacgtgatgg tgaaggagct gcacacggga
240
cagggctggt tettecetge ceagtgetgg etgtetgeeg geaggeatga tggtegegtg
gagegggage teacetgtet geaaggggga eteggettet ggaagetttt etattgeaag
ttcacagagt acctggagga tttccatgtc tggctgtcgg tgtacagcag gccctcctcc
ageogetace tgcacacgee gegeeceace gtgteettet ecetgetgtg egtetacgeg
480
t
481
                                             or operation.
<210> 2076
<211> 160
<212> PRT
<213> Homo sapiens
 <400> 2076
Xaa Ala Arg Leu Thr Ser Lys Val Tyr Ile Val Leu Cys Gly Asp Asn
                                                          15
                                     10
Gly Leu Ser Glu Thr Lys Glu Leu Ser Cys Pro Glu Lys Ser Leu Phe
 Glu Arg Asn Ser Arg His Thr Phe Ile Leu Ser Ala Pro Ala Gln Leu
                             40
 Gly Leu Leu Arg Lys Ile Arg Leu Trp His Asp Ser Arg Gly Pro Ser
                                             60
                         55
 Pro Gly Trp Phe Ile Ser His Val Met Val Lys Glu Leu His Thr Gly
                                         75
                     70
 Gln Gly Trp Phe Phe Pro Ala Gln Cys Trp Leu Ser Ala Gly Arg His
                                     90
 Asp Gly Arg Val Glu Arg Glu Leu Thr Cys Leu Gln Gly Gly Leu Gly
                                 105
             100
 Phe Trp Lys Leu Phe Tyr Cys Lys Phe Thr Glu Tyr Leu Glu Asp Phe
                             120
         115
 His Val Trp Leu Ser Val Tyr Ser Arg Pro Ser Ser Ser Arg Tyr Leu
                                              140
                          135
 His Thr Pro Arg Pro Thr Val Ser Phe Ser Leu Leu Cys Val Tyr Ala
                                          155
                      150
 145
 <210> 2077
 <211> 1410
 <212> DNA
 <213> Homo sapiens
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<400> 2077

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ncagagigti tigagciato tggiatocca aatgatgiga atacittcag aaaccaatgg
60
caaattgaac ccaactgttt gcgaattcgg cacgagtaaa gatcttttt ttttttttgt
ttttttttt tttttttt ttttgctttc taaagtggct ttaatatcac acaagcggct
180
ctttggtcta cagtgagaga aaacagaggg agccaggaaa ggctccccgc tggcctctgg
agtocaggag cottaggaag gotgaaacaa goootgacca goaggottag ttgtootgag
aagagccagt gaggccacct ggtccagttc accaggtttc ccagggaagc acaggcatct
ctgggtcccc gagcacagtg ccagggaaga cacccccaat ccccatctga acaggccgag
ggcagcatgg gaaaggctca gactgcaggt tcatcccgca ggatggtaag gacacgtgct
cetecetege aagageagge ttgtgeacag eeeggeacag ggeeageeag ggeggeeeet
geggetgtge agegettace agggggagga gtteagecat caggacettt tecaagtgga
tetgetggte cageacagee actegeaget tgagggeege cagggtetge ageteetggg
tgctggagta gacaagcagc tgggnnggct ccatgcaggc tccgctctac ccccacagga
cggcgaggct ccggggggcc tnnccccaca gacatggtct tggtggctgt tccgccaccg
ctgcacgcag ctcctgcagc ctgtgcagac actggcccac catggcctgc agcccctcca
gegtgageag geageggtae teetgeatee agteeatggg ggetgetgag ageteeteee
900
tcatgcgcag tctcagcagc gagcaggcct tccgcaggcg ccccgcctcc gcctccacct
960
ccacagcact gagcctgggc tggggcccgc ctgaagctgt ctgcatgttc tggaggaact
1020
gggttttggc agcggcggca tccgtggaat cactggtctg tgtggaactg agctgggccc
1080
acaggetega gttetgggaa getgetttee tgaatgeege aggeageege ageaggtgee
cetteteett gagtgtgaag gettetgggg eetgaggage ageggatggg geeatttget
1200
ggtccctgag gcccgccca ggcctggggg ttcgggctcc catcccaaca cgggtcccat
1260
cccccactga cagcagccgg cgctcagggt ggcccttggc aggcaccgtg gtctggcgga
1320
ggcccttggt gggtctcgtg tctgaagcat ggccaccagc ttggcctggg gaatgcggtg
gggcggaggc tgtcgtgcca gaagaggtga
1410
 <210> 2078
 <211> 106
 <212> PRT
 <213> Homo sapiens
```

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<400> 2078
Gly His Leu Val Gln Phe Thr Arg Phe Pro Arg Glu Ala Gln Ala Ser
Leu Gly Pro Arg Ala Gln Cys Gln Gly Arg His Pro Gln Ser Pro Ser
                                25
Glu Gln Ala Glu Gly Ser Met Gly Lys Ala Gln Thr Ala Gly Ser Ser
                            40
Arg Arg Met Val Arg Thr Arg Ala Pro Pro Ser Gln Glu Gln Ala Cys
                                            60
                        55
Ala Gln Pro Gly Thr Gly Pro Ala Arg Ala Ala Pro Ala Ala Val Gln
                                        75
                    70
65
Arg Leu Pro Gly Gly Gly Val Gln Pro Ser Gly Pro Phe Pro Ser Gly
                                    90
                85
Ser Ala Gly Pro Ala Gln Pro Leu Ala Ala
                                105
<210> 2079
<211> 565
<212> DNA
<213> Homo sapiens
<400> 2079
atttacctcg caaccgaccc tgatcgtgaa ggtgaaagca tcagctggca catccagcag
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gaagaggcac tggccaatcc tcgacaaatc gatctgaaca gagttgcctc acaggaatgc
cggcgtgtgc ttgaccgctt ggtggggtac ctggtgaccc aagagttgcg gcgcctgatg
ggcaaaccta cttccgctgg ccgcgttcaa tcacccgccg tgtttcttgt ggtcttgcgc
gaacgcgaga tccgcaactt tcaggtgatc aatcactttg gcgtgcgtct gttctttgcc
gatgtaagtc ggggcaccac ttggtatgcc gagtggcaac cggtaccgga tttcgcaagc
aagcacttcc cctatgttca ggatagcaac ctggctcagc acgtcgccgg cactcgaaat
gtggtcgtgg agtcctgcga ggatcgcaag gccgagcgtc atcctcctgc accattcatc
tcatccactc ttcaacaggc cgcca
565
<210> 2080
 <211> 188
 <212> PRT
<213> Homo sapiens
 <400> 2080
Ile Tyr Leu Ala Thr Asp Pro Asp Arg Glu Gly Glu Ser Ile Ser Trp
His Ile Gln Gln Val Leu Ala Val Lys Ser Tyr Lys Arg Ile Thr Phe
```

Asn Glu Ile Thr Leu Lys Arg Val Glu Glu Ala Leu Ala Asn Pro Arg

```
40
Gln Ile Asp Leu Asn Arg Val Ala Ser Gln Glu Cys Arg Arg Val Leu
Asp Arg Leu Val Gly Tyr Leu Val Thr Gln Glu Leu Arg Arg Leu Met
                                        75
                    70
Gly Lys Pro Thr Ser Ala Gly Arg Val Gln Ser Pro Ala Val Phe Leu
               85
Val Val Leu Arg Glu Arg Glu Ile Arg Asn Phe Gln Val Ile Asn His
                                                    110
                               105
Phe Gly Val Arg Leu Phe Phe Ala Asp Val Ser Arg Gly Thr Thr Trp
                                                125
                           120
Tyr Ala Glu Trp Gln Pro Val Pro Asp Phe Ala Ser Lys His Phe Pro
                                            140
                        135
Tyr Val Gln Asp Ser Asn Leu Ala Gln His Val Ala Gly Thr Arg Asn
                                       155
                   150
Val Val Val Glu Ser Cys Glu Asp Arg Lys Ala Glu Arg His Pro Pro
                                   170
                165
Ala Pro Phe Ile Ser Ser Thr Leu Gln Gln Ala Ala
                               185
            180
<210> 2081
<211> 319
<212> DNA
<213> Homo sapiens
<400> 2081
aagcttatgg aaaaacgggg atacggagag gagtatataa atcgctataa aatgatgaca
aggttccatc atcaacgggt tccactagta attttggtgt gtggaactgc ctgtactgga
aaatcaacaa togotacaca acttgotcag aggotcaatt tgootaatgt tttgoagacg
gacatggtgt atgagetget geggacatea acagatgege caettaette agtteetgtg
tgggctcgcg attttaattc acctgaagag cttatcactg aattctgcag agaatgcaga
300
gttgtacgca agggtttgg
319
 <210> 2082
 <211> 106
 <212> PRT
 <213> Homo sapiens
 <400> 2082
 Lys Leu Met Glu Lys Arg Gly Tyr Gly Glu Glu Tyr Ile Asn Arg Tyr
                                                         15
                                     10
 Lys Met Met Thr Arg Phe His His Gln Arg Val Pro Leu Val Ile Leu
                                 25
 Val Cys Gly Thr Ala Cys Thr Gly Lys Ser Thr Ile Ala Thr Gln Leu
                             40
 Ala Gln Arg Leu Asn Leu Pro Asn Val Leu Gln Thr Asp Met Val Tyr
 Glu Leu Leu Arg Thr Ser Thr Asp Ala Pro Lèu Thr Ser Val Pro Val
```

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. 70
                                        75
Trp Ala Arg Asp Phe Asn Ser Pro Glu Glu Leu Ile Thr Glu Phe Cys
                85
Arg Glu Cys Arg Val Val Arg Lys Gly Leu
<210> 2083
<211> 382
<212> DNA
<213> Homo sapiens
<400> 2083
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atacctactg ttgaatgcaa ctgtggccac gttttctgct ttggctgtgg tttggatgga
caccagoogg toattigtgo tgttgtoogo ttgtggotga aaaaatgtgo ggatgacagt
gagacgtcca actggatcgg cgctaatacc aaggaatgcc ccaaatgctg ttcgacgatt
gaaaagaatg gcggatgtaa tcatatgacg tgtcgcaagt gcaaatacga attttgttgg
atttgctcgg gcccatggtc ggagcacgga aacaactatt acaactgcaa tcggtacgat
gaaaaggcag gagatgaagg tn
382
<210> 2084
<211> 127
<212> PRT
<213> Homo sapiens
<400> 2084
Xaa Pro Asp Cys Asp Met Ala Val Glu Cys Ala Val Thr Arg Lys Gln
Leu Tyr Thr Ile Ile Pro Thr Val Glu Cys Asn Cys Gly His Val Phe
                                 25
Cys Phe Gly Cys Gly Leu Asp Gly His Gln Pro Val Ile Cys Ala Val
                             40
Val Arg Leu Trp Leu Lys Lys Cys Ala Asp Asp Ser Glu Thr Ser Asn
                                             60
                         55
Trp Ile Gly Ala Asn Thr Lys Glu Cys Pro Lys Cys Cys Ser Thr Ile
                     70
Glu Lys Asn Gly Gly Cys Asn His Met Thr Cys Arg Lys Cys Lys Tyr
                                     90
Glu Phe Cys Trp Ile Cys Ser Gly Pro Trp Ser Glu His Gly Asn Asn
                                 105
             100
Tyr Tyr Asn Cys Asn Arg Tyr Asp Glu Lys Ala Gly Asp Glu Gly
                             120
        115
 <210> 2085
 <211> 478
 <212> DNA
 <213> Homo sapiens
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<400> 2085
nnggatecca aagacegega tattgecatg gtgttecaaa actatgeeet etaceegeae
atgactgtcg ccgacaacat gggttttgcc ctcaaactgg cgaaagtgga taagaaagaa
120
atccggcgtc gcgtggagga agccgccgaa ctcctcgacc tcaccgacta tctggaccgc
aaacccaagg cactctccgg tggccagcgg cagcgcgtcg ccatggggcg cgctattgtt
egtteecece gegtettett gatggaegag cetettteta acetggatge gegtetgegt
gtccgcaccc gcgcccagat tgcggaactg cagcgccgcc tgggcaccac caccgtttat
gtcacccatg accaggtgga ggctatgacg atgggggatc gtgtggctgt tctctgtgcc
gggaaactgc agcaggtgga tactccacgt aatcttttcg accaccccgc taacgcgt
<210> 2086
<211> 159
<212> PRT
<213> Homo sapiens
<400> 2086
Xaa Asp Pro Lys Asp Arg Asp Ile Ala Met Val Phe Gln Asn Tyr Ala
                  5
                                     10
Leu Tyr Pro His Met Thr Val Ala Asp Asn Met Gly Phe Ala Leu Lys
                                 25
Leu Ala Lys Val Asp Lys Lys Glu Ile Arg Arg Arg Val Glu Glu Ala
                                                 45
                             40
Ala Glu Leu Leu Asp Leu Thr Asp Tyr Leu Asp Arg Lys Pro Lys Ala
                                             60
Leu Ser Gly Gly Gln Arg Gln Arg Val Ala Met Gly Arg Ala Ile Val
                                         75
                     70
Arg Ser Pro Arg Val Phe Leu Met Asp Glu Pro Leu Ser Asn Leu Asp
                                     90
                 85
Ala Arg Leu Arg Val Arg Thr Arg Ala Gln Ile Ala Glu Leu Gln Arg
                                 105
             100
Arg Leu Gly Thr Thr Thr Val Tyr Val Thr His Asp Gln Val Glu Ala
                                                 125
                             120
Met Thr Met Gly Asp Arg Val Ala Val Leu Cys Ala Gly Lys Leu Gln
                         135
Gln Val Asp Thr Pro Arg Asn Leu Phe Asp His Pro Ala Asn Ala
                     150
 145
 <210> 2087
 <211> 731
 <212> DNA
 <213> Homo sapiens
 <400> 2087
 gataattete tacaeggeat gagetgggga egtaceeece ttgecaaegt caceteaegg
 60
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tegtacegtg gtgattagea getageegag gegetageeg ceatataaga tteecaaatt
aaaagaaaaa gcattgcgtc ggccaagaat tgctgtcgct gctgcaacgg ctactgcgct
ggtcggatca atcgcagcaa tcacccctc ccccaggcag aagctaactc caataggcca
cgctcggtag ctcaagccgc tatcgccacg gatggaaagg ggataatcaa caaggactgc
cgtgatgcag tcatcaacga tgcaaagctg cgtgccgcga ttgccggtgc gttggttaag
gctggattta gttccgccga cgcggtggct ctagcgccgc gtattgccag agaaatggca
420
aaagagggcg teeteeteat caaceaceae aagetaaagg eteteategg ageeeaggtg
ggtctgctca ctgatgcgaa gatccagcgt gctgccgctg cagtggacct cggcatcaaa
540
gecactetag etgegacaat catteecaae gegetgeatt cageggeatt caaggatgeg
600
gtggtcgcaa atcttgtcgc cgccggtctg acaagaagtt ggcaaaggct acggctgtcg
ccattgccgc aactgcgctc aatcccgctc tcgggccgat cgcaaagact gaggccatta
aggctgagat c
731
<210> 2088
 <211> 105
 <212> PRT
 <213> Homo sapiens
 <400> 2088
Met Ala Lys Glu Gly Val Leu Leu Ile Asn His His Lys Leu Lys Ala
                                                         15
Leu Ile Gly Ala Gln Val Gly Leu Leu Thr Asp Ala Lys Ile Gln Arg
Ala Ala Ala Val Asp Leu Gly Ile Lys Ala Thr Leu Ala Ala Thr
                             40
 Ile Ile Pro Asn Ala Leu His Ser Ala Ala Phe Lys Asp Ala Val Val
                         55
 Ala Asn Leu Val Ala Ala Gly Leu Thr Arg Ser Trp Gln Arg Leu Arg
                                         75
 Leu Ser Pro Leu Pro Gln Leu Arg Ser Ile Pro Leu Ser Gly Arg Ser
                                     90
                 85
 Gln Arg Leu Arg Pro Leu Arg Leu Arg
             100
 <210> 2089
 <211> 315
 <212> DNA
 <213> Homo sapiens
 <400> 2089
 accegitging accagnica getgegene gecatnitit cetacettee ceaccacaan
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ctcggggaat tcgacatcga tctgttgctg gaccatcgcg attcccgtca gcccatcatc
120
ttcgacaccg accacttcga ggggtacgag cgcccccgcc tcgtgctgca cgaagtcacc
gatcaacttg gccaagcgtt ccttgtattg gaaggcccag agccggctct cggctgggaa
tcgttggtgg cgtctctcac gagtcttgtc gactctatgg ggatccgtct gaccggcatt
accgattcga tcccg
315
<210> 2090
<211> 105
<212> PRT
<213> Homo sapiens
<400> 2090
Thr Gly Val Asp Gln Ala Gln Leu Arg Asp Ala Met Phe Ser Tyr Leu
                                    10
Pro His His Lys Leu Gly Glu Phe Asp Ile Asp Leu Leu Asp His
                                25
            20
Arg Asp Ser Arg Gln Pro Ile Ile Phe Asp Thr Asp His Phe Glu Gly
                             40
Tyr Glu Arg Pro Arg Leu Val Leu His Glu Val Thr Asp Gln Leu Gly
                                             60
                        55
Gln Ala Phe Leu Val Leu Glu Gly Pro Glu Pro Ala Leu Gly Trp Glu
                    70
                                        75
Ser Leu Val Ala Ser Leu Thr Ser Leu Val Asp Ser Met Gly Ile Arg
                85
Leu Thr Gly Ile Thr Asp Ser Ile Pro
            100
<210> 2091
<211> 322
<212> DNA
<213> Homo sapiens
<400> 2091
actettgtee attgtetetg tetetgegtt tttetetetg tetetetgtg tetetgtete
tgtgtccctg tccagttctg tnnctgtgtg tgcgcgcatc tctctctgtg tctctgtnng
agtetetgte tettttgtet etgtetetet etgtgtetet geceattttg gtetetgett
 180
tettteetet gtgtgtetet ceatttetgt etetetteet etgtetetet ecatttetgt
etetgetett tttetetetg tgtgtetett ttgtetetet gtttetetge gtgtetetgt
 ccatttctgt cccttcacgc gt
 322
 <210> 2092
 <211> 107
 <212> PRT
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His Tyr Leu Phe Glu Pro Val Ala Cys Thr Pro Ala Ala Gly Trp Glu

70

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95
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                85
Lys Gly Gln Val Glu Asn Gln Val Arg Asn Ile Arg
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<213> Homo sapiens
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cgcgtggtgg gcgtgggttc agtgggcacc cactccctgg tactgctact gtccggcccc
aatgatgaac ctcttgtgct gcaagtgaaa gaagccctcc ccagtgtcct caccacccat
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                 5
Thr Tyr Val Arg Thr Leu Pro Pro Ala Ala Asn Leu Leu Leu Lys Gln
                                 25
Phe His Ile Val Asp Val Ala Arg Arg Val Val Gly Val Gly Ser Val
                             40
Gly Thr His Ser Leu Val Leu Leu Ser Gly Pro Asn Asp Glu Pro
                                             60
Leu Val Leu Gln Val Lys Glu Ala Leu Pro Ser Val Leu Thr Thr His
                                         75
                     70
Gly Lys Leu Pro Asp Ala Phe Ser Glu Leu Ser Ala Gly Asp Ser Ser
                85
Gly Leu Leu Pro Asp Asn Leu Asp Lys His Ile Lys Ala Gly Asn Gly
                                 105
Tyr Arg Val Val Ala Cys Gln Gln Ile Leu Gln Ala His Ser Asp Pro
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        115
Leu Leu Gly Trp Thr Arg
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 <210> 2097
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 <212> DNA
 <213> Homo sapiens
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PCT/US00/08621 WO 00/58473

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gecatgagea aggaggagge egaccaggta etgggegtge agetgggget gtetgteege
180
caccegecte cacgeeteae tteaggetee eteccageea ggegtgggee tggeeeteae
tgtcgctgct ccacatgctg tcactcgtct cctccccagt cctgcctcat cctcacnccg
cegtecetet gegtgteact etetgeetgt ecteaetggt teagggacee ecageetete
tttattegge tetatetgae eetggetetg cetetgaete tgeetetgge eeeteeegte
atgecectea cactetetet eccecagece cegteetgeg geceegagga egacgeceag
ctccagctgg cccttagttt gagccgagaa gagcatgata aggtcagagc agcctccctg
tecetgeece tgecaggge teceetcaga ccagececgt egeceettee taagteacee
cecaccatee tgetgggeee gaageecaca ggeteaegeg t
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 Pro Pro Pro Glu Ala Glu Gln Ala Trp Pro Gln Ser Ser Gly Glu Glu
                                 25
 Glu Leu Gln Leu Gln Leu Ala Leu Ala Met Ser Lys Glu Glu Ala Asp
                             40
 Gln Val Leu Gly Val Gln Leu Gly Leu Ser Val Arg His Pro Pro Pro
                         55
 Arg Leu Thr Ser Gly Ser Leu Pro Ala Arg Arg Gly Pro Gly Pro His
                                         75
                     70
 Cys Arg Cys Ser Thr Cys Cys His Ser Ser Pro Pro Gln Ser Cys Leu
                                     90
                 85
 Ile Leu Thr Pro Pro Ser Leu Cys Val Ser Leu Ser Ala Cys Pro His
                                 105
             100
 Trp Phe Arg Asp Pro Gln Pro Leu Phe Ile Arg Leu Tyr Leu Thr Leu
                                                  125
                              120
         115
 Ala Leu Pro Leu Thr Leu Pro Leu Ala Pro Pro Val Met Pro Leu Thr
                                              140
                         135
 Leu Ser Leu Pro Gln Pro Pro Ser Cys Gly Pro Glu Asp Asp Ala Gln
                                          155
                     150
 Leu Gln Leu Ala Leu Ser Leu Ser Arg Glu Glu His Asp Lys Val Arg
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Ala Ala Ser Leu Ser Leu Pro Leu Pro Gly Ala Pro Leu Arg Pro Ala

170

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190
                                185
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Pro Ser Pro Leu Pro Lys Ser Pro Pro Thr Ile Leu Leu Gly Pro Lys
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Pro Thr Gly Ser Arg
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<211> 347
<212> DNA
<213> Homo sapiens
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gaggeagtge ceagggetge tgtgeecatg egtgtaceet gteetetgee agaegeggae
agcacctgcc cacggggtgc tcagtggagg cagtgcccag ggctgctgtg cccacgtgtg
tgccctcaga catccctccc cagacacttg ctgcatgacc caggaggtgg caggcagtgg
cagtattctg ttcaggtgag ctcagaggtg gcaggtgcct ggctgcggcc ctgcctcact
ccgacageet etgeetecag tecaetgget cateccacat ggeetga
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<211> 106
<212> PRT
<213> Homo sapiens
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Met Asp Ser Thr Cys Pro Gln Gly Cys Ser Val Glu Ala Val Pro Arg
                                    10
                 5
Ala Ala Val Pro Met Arg Val Pro Cys Pro Leu Pro Asp Ala Asp Ser
                                                     30
                                25
Thr Cys Pro Arg Gly Ala Gln Trp Arg Gln Cys Pro Gly Leu Leu Cys
                                                 45
                            40
Pro Arg Val Cys Pro Gln Thr Ser Leu Pro Arg His Leu Leu His Asp
                        55
Pro Gly Gly Gly Arg Gln Trp Gln Tyr Ser Val Gln Val Ser Ser Glu
                                         75
                    70
Val Ala Gly Ala Trp Leu Arg Pro Cys Leu Thr Pro Thr Ala Ser Ala
                                    90
                85
Ser Ser Pro Leu Ala His Pro Thr Trp Pro
            100
<210> 2101
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<212> DNA
<213> Homo sapiens
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PCT/US00/08621

WO 00/58473

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acgtttcgat ggggcgtgac gaattgcccc tgccgacggc gacctctctg gctctgtgtg
ggttgaacca cgacaagaat gagttgctgg ccagccttct catccacctt gacgagctat
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taacagtgtg gttggagacc ggaacggtgc gggatcagta tgtggcccgc tgtgacacca
ttggtactcc ggtccgtctg accttcgacc cagaaatcgt gggtggtggt gaggggcca
300
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ggcgtcgcag tttcaacgct gctgacgttc atcatttgcg aaccaggtga gttccgctac
ggcgtcctga gcgttcccac catctagact gctgactatg acgacccaca ttttggccct
tggtggtggc ggtttctcga tgtcgaaccg cggtgagcct accgctctcg accgtcacat
540
ccctgacct
549
<210> 2102
<211> 113
<212> PRT
<213> Homo sapiens
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Met Gly Arg Asp Glu Leu Pro Leu Pro Thr Ala Thr Ser Leu Ala Leu
Cys Gly Leu Asn His Asp Lys Asn Glu Leu Leu Ala Ser Leu Leu Ile
                                 25
 His Leu Asp Glu Leu Leu Thr Val Trp Leu Glu Thr Gly Thr Val Arg
                             40
 Asp Gln Tyr Val Ala Arg Cys Asp Thr Ile Gly Thr Pro Val Arg Leu
 Thr Phe Asp Pro Glu Ile Val Gly Gly Glu Gly Ala Ile Glu Gly
                     70
 Ile Gly Val Asp Val Asp Val Asp Gly Ala Ile Val Val Glu Thr Ser
 Asp Gly Arg Arg Ser Phe Asn Ala Ala Asp Val His His Leu Arg Thr
                                 105
             100
 Arg
 <210> 2103
 <211> 459
 <212> DNA
 <213> Homo sapiens
 <400> 2103
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tgggaggggg acgcatatcg gtacgaccag gttggtatgg aaatcaaagg gaatgacgtc

180

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ggtatcgtcg gatgcggagc ggtcgggtgc cgggttgcgg ctgtgatggc ggccatgggt
gcgaccgtgc gtgtcttcga cccgtgggcc actcctgatt cttttccagc tggcgtgatg
gcatgtgatg atctcgatga ggttctgagg ctcagccgca tcctcactct ccacgctcgt
gccaacgagg acaaccgtca catgattggc gttgaacaat tagctgagat gcctgatggc
teegteeteg teaactgtge eegtggeteg etggtegae
<210> 2104
<211> 153
<212> PRT
<213> Homo sapiens
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His Thr Ile Ala Met Ile Met Ala Ala Val Arg Gln Ile Pro Ala His
            20
                                25
His Glu Leu Leu Ala Ser Gly Val Trp Glu Gly Asp Ala Tyr Arg Tyr
                            40
        35
Asp Gln Val Gly Met Glu Ile Lys Gly Asn Asp Val Gly Ile Val Gly
                                             60
                         55
Cys Gly Ala Val Gly Cys Arg Val Ala Ala Val Met Ala Ala Met Gly
                                         75
                    -70
65
Ala Thr Val Arg Val Phe Asp Pro Trp Ala Thr Pro Asp Ser Phe Pro
                                     90
Ala Gly Val Met Ala Cys Asp Asp Leu Asp Glu Val Leu Arg Leu Ser
                                 105
Arg Ile Leu Thr Leu His Ala Arg Ala Asn Glu Asp Asn Arg His Met
                             120
Ile Gly Val Glu Gln Leu Ala Glu Met Pro Asp Gly Ser Val Leu Val
                                             140
                         135
Asn Cys Ala Arg Gly Ser Leu Val Asp
 <210> 2105
 <211> 4057
 <212> DNA
 <213> Homo sapiens
 <400> 2105
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 cccctatatg gctccagtcg gttttggggg gggcagctaa gtgggggagg gggaacacaa
 aagtttgggc aaaacattaa cctgacaaag cttgattccg gaaaaaaatc cctcaagagc
 gcaaggccag cttagccaac tggcagctga gtggaaaggt tcagtcctct cgggcagctc
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300

cggtggcacc	tagaggggag	agggtgcagg	ctttgaagcc	agaaagacat	ggatgcaagt
360 cttactttgc	ttcttgctgt	taccagttgg	cctgacctta	ggaaatgtta	tttaatctct
420 ctccagttgt	ttcccctgga	gaaagccctg	tcagcctgag	gatccaagac	gcgtacgtaa
480 agtgtctgat	ttcagccagt	gtcccttcct	gtcccttcct	ggggtgtgtg	tcggttgccc
540 tgagcgaccg	gccatgggac	tctgtcgtga	taaccaagct	tcagggtgtg	ggaagaggac
600		atcactcggt			
660		ccagagtgta			
720		tactcccagc			
780		tgcactcttc			
840	*	tctgaactcc			
900		cctccctgct			
960	•	tgatattccc			
1020		gcagggcagc			
1080		ggtggctctg			
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1200		cccggaactg			
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1320		gcacggtgcc			
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1560		aagtctggaa			tttggctaaa
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1680					ttccttgaag
1740					atgaccagtc
1800					ttaaaaccat
1860					gtttatgagc
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ctttatatca attatacatt taatataatt taatttaaaa taatttaaag attcttagga gatagtetga ettteetgae etagatggga atgateagat agggattttt tttgtggeae aggetaaatt tgatggtgae atttatattg ttgagaatgt tacatettat tttaccacaa 2100 cttttaaaaa atgttacatc ttttgcagta ggatcagttg tgaggcacat agtagctgag 2160 getecatgga gecaeettte atttetttea gteagagagg aggacagtet etgtetetge atttctggtg tcttgcttgt cggtggcaga gccatgcttg ccggcatttg cttaggtggc catagtagtt gctaagtgta caggtgactg ggcagggatg ggaggtggcc acaggtcaga gacaagtgct cagtcagtcc ctggtgccag gactgtgtgc ctcggtgcct tgggaaatgg aageteeetg gtgeagetge agetgtgggt ggaggtagag aagecageaa gaeettggte ttaaccccgt gttcattttc ttgctagctg tgtgacgttg ggctacctcg cttctctgag tacaaatggt gtgtggtgaa tgggtcccag gtatgctacg agctttgagg gctgctctt ttctcttcat agcgataagt gttaaactgt ctttcttagg aaacgttcac agacttgcaa cagetgatgt cetetgagta etgtetgaet eceteaggea agtteetgaa tteagtaeea 2700 tcattattat ttttgtgtaa gactttgaca aagtatagcc cctgccacca gagcagcctg tacagtgggt ctctaaggtg ggacctgccc cgggcctgcc atgcacgtgt gtgaaacagc gtgaaaagtg tegeggtaag gtgaeeetgg gttaeeeagg caaggetegg tgtttgttte 2880 agaaagcaga gaagtatgta attgatttta aaagtttctg tttaaaatat ttggctatgt 2940 tttagactat gaaggaatga actttgcttc tctggataag aaagtcacat acattgttcc agetecaagt ttgtteggee etegecacaa gtggatgtag egtttggeee tttgtgtgee ttgctggtga ctctggtttt gggagctcgg atatgtccca gaagcaggct tatggcactt ctgtagetee ettgetacee tteetttgtg tetagataag tgaetgaeat gettttett 3180 ggtctcagga aagtgggggc tcagcaagaa ctgattaccg agccattcaa ctagccaagg 3240 aaaaaaagca gagaggagcg gggagcaatg caggtgaggc cgtgtgtgct gcagccggac gagcaagggc ctgagggttc tctgtcactg ttactggcag aagaaacaca gcaggtgttt ctgtgctctt ggttttacgt ttctgttcag aatacccttt tatcaactcc ttagttttat ttgaacttaa gggaaaaaat tagtaacaaa attcccagca tcagtatgaa catattttat ttgcctaaac aagctttgtg aaagttaagc gttcaaacac cagtgtcagt tacctggaag 3540

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Glu Ala Pro Ser Ser Leu Thr Pro Ser Ser Glu Leu Ser Ser Pro Gly
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Gln Ser Glu Leu Thr Asn Met Asp Leu Ala Ala Leu Phe Ser Asp Thr
Pro Ala Asn Ala Ser Gly Ser Ala Gly Gly Ser Asp Glu Ala Leu Asn
                        55
Ser Gly Ile Leu Thr Ile Asp Val Thr Ser Val Ser Ser Ser Leu Gly
                    70
Gly Asn Leu Pro Ala Asn Asn Ser Ser Leu Gly Pro Met Glu Pro Leu
                                     90
Val Leu Val Ala His Ser Asp Ile Pro Pro Ser Leu Asp Ser Pro Leu
                                 105
            100
Val Leu Gly Thr Ala Ala Thr Val Leu Gln Gln Gly Ser Phe Ser Val
                                                 125
                             120
Asp Asp Val Gln Thr Val Ser Ala Gly Ala Leu Gly Cys Leu Val Ala
                                             140
                         135
Leu Pro Met Lys Asn Leu Ser Asp Asp Pro Leu Ala Leu Thr Ser Asn
                                         155
                     150
Ser Asn Leu Ala Ala His Ile Thr Thr Pro Thr Ser Ser Ser Thr Pro
                                     170
                 165
 Arg Glu Asn Ala Ser Val Pro Glu Leu Leu Ala Pro Ile Lys Val Glu
                                 185
             180
 Pro Asp Ser Pro Ser Arg Pro Gly Ala Val Gly Gln Gln Glu Gly Ser
                                                 205
                             200
 His Gly Leu Pro Gln Ser Thr Leu Pro Ser Pro Ala Glu Gln His Gly
                         215
 Ala Gln Asp Thr Glu Leu Ser Ala Gly Thr Gly Asn Phe Tyr Leu Val
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240
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225
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<211> 305
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<213> Homo sapiens
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geeteaggee tggtgtetga aaacaccccc agacetgatg acageagage tategeteca
geeteeetee aaateaceag ttettgttet ggtgaaceee tggacetgga ttecaaggat
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300
ccncn
305
<210> 2108 -
<211> 92
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<213> Homo sapiens
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Met Ala Gln Val Pro Met Leu Asn Leu Leu Pro Ser Pro Gly Leu Ala
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1
Leu Val Pro Asp Leu Asn Asp Ser Leu Ser Pro Val Ser Gly Glu Ala
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           20
Ser Gly Leu Val Ser Glu Asn Thr Pro Arg Pro Asp Asp Ser Arg Ala
                           40
        35
Ile Ala Pro Ala Ser Leu Gln Ile Thr Ser Ser Cys Ser Gly Glu Pro
                                          60
                       55
Leu Asp Leu Asp Ser Lys Asp Val Ser Arg Pro Asp Ser Gln Gly Arg
                                      75
                   70
Leu Cys Pro Ala Ser Asn Pro Ile Leu Ala Xaa Pro
<210> 2109
<211> 700
<212> DNA
<213> Homo sapiens
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gccaagaaaa ctagtgttaa agaaactcag aggactttta aggggaacgc acaaaaaatg
240
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ttttctccaa agaagcattc ggttagcaca agtgatagaa accaggagga gagacagtgc
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gtaaagcagg tgcaagaaaa agtgtttact tcagctgctt ttcatgagct gggcctccac
ccacatttaa tttccacaat aaatacggtc ttaaaaatgt ctagtatgac cagtgttcag
aagcaaagta ttootgtgtt gotggaaggo agagatgoto togtgagato coagacgggo
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Asp Asn Pro Arg Thr Phe Ser Arg Arg Pro Pro Ala Gln Ala Ser Arg
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             20
Gln Ala Lys Ala Thr Lys Arg Lys Tyr Gln Ala Ser Ser Glu Ala Pro
                             40
Pro Ala Lys Arg Arg Asn Glu Thr Ser Phe Leu Pro Ala Lys Lys Thr
                         55
Ser Val Lys Glu Thr Gln Arg Thr Phe Lys Gly Asn Ala Gln Lys Met
                                         75
Phe Ser Pro Lys Lys His Ser Val Ser Thr Ser Asp Arg Asn Gln Glu
                                     90
                 85
 Glu Arg Gln Cys Ile Lys Thr Ser Ser Leu Phe Lys Asn Asn Pro Asp
                                 105
             100
 Ile Pro Glu Leu His Arg Pro Val Val Lys Gln Val Gln Glu Lys Val
                                                 125
                             120
 Phe Thr Ser Ala Ala Phe His Glu Leu Gly Leu His Pro His Leu Ile
                                             140
                         135
 Ser Thr Ile Asn Thr Val Leu Lys Met Ser Ser Met Thr Ser Val Gln
                                         155
                     150
 Lys Gln Ser Ile Pro Val Leu Leu Glu Gly Arg Asp Ala Leu Val Arg
                                                         175
                                     170
                  165
 Ser Gln Thr Gly Ser Gly Lys Ile Leu Ala Tyr Cys Ile Pro Val Val
                                 185
             180
 Gln Ser Leu Gln Ala Met Glu Ser Lys Ile Gln Arg Ser Asp Gly Pro
                                                  205
                             200
         195
 Tyr Ala Leu Val Leu Val Pro Thr Arg Glu Val Ser Arg Leu Pro Phe
                          215
 Gly Thr Ser Phe Lys His Met Leu Ser
                      230
 225
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<211> 339
<212> DNA
<213> Homo sapiens
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gaaggeetgg ttgagegtgt gegeagtget ettgagegte tgegtgeeca agagegegea
atcatgcage tetgegtacg tgatgcaege atgeegegtg cegaetteet gegecagttt
ccgggcaacg aagtggatga aagctggacc gacgcactg
<210> 2112
<211> 113
<212> PRT
<213> Homo sapiens
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Thr Arg Cys Ala Gly Pro Asp Pro Ile Ile Ala Ala Gln Arg Phe Gly
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Ala Val Ser Asp Gln Met Glu Ile Thr Arg Lys Ala Leu Lys Lys His
Gly Arg Gly Asn Lys Leu Ala Ile Ala Glu Leu Val Ala Leu Ala Glu
                            40
Leu Phe Met Pro Ile Lys Leu Val Pro Lys Gln Phe Glu Gly Leu Val
                        55
Glu Arg Val Arg Ser Ala Leu Glu Arg Leu Arg Ala Gln Glu Arg Ala
                                        75
                    70
Ile Met Gln Leu Cys Val Arg Asp Ala Arg Met Pro Arg Ala Asp Phe
                                    90
Leu Arg Gln Phe Pro Gly Asn Glu Val Asp Glu Ser Trp Thr Asp Ala
                                105
            100
Leu
<210> 2113
<211> 2329
<212> DNA
<213> Homo sapiens
<400> 2113
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atcacagtaa totggggcgt gtccccagaa gacaatggca acccactaaa tcccaagagt
aaagggaagt tgacattaga tagcagtttt aacatcgcca gcccagcttc ccaggcctgg
180
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attttgcact tetgtcaaaa actgagaaac caaacattct tttaccagac tgatgaacag gacttcacca getgetteat tgagacatte aaacagtgga tggaaaacca ggactgtgat 300 gageetgeee tgtacecatg etgeagecae tggagettee eetacaagea agagattttt gaactgtgca tcaagagagc tatcatggag ctggaaagga gtacagggta ccatttggat agcaaaaccc cagggccgag gtttgatatc aatgatacta tcagggcagt ggtgttagag 480 ttccagagta cctacctctt cacactggct tatgaaaaga tgcatcagtt ttataaagag gtggactcgt ggatatccag tgagctgagt tcggcccctg aaggcctcag caatggttgg 600 tttgtcagca atctggagtt ctatgacctc caggatagcc tctccgatgg caccctcatt gccatggggc tgtcagttgc tgttgcattt agcgtgatgc tgctgacaac ttggaacatc atcataagcc tttatgccat catttcaatt gctggaacga tatttgtcac tgttggttct ettgteetge tgggetggga geteaatgtg ttggaatetg teaccattte ggttgeegte ggettgtetg tagaetttge egtecattat ggggttgeet acegettgge tecagatece 900 gaccgagaag gcaaagtgat cttctctctg agtcgcgtgg gctctgcgat ggccatggct gecetgacea cettegtgge aggggecatg atgatteect ceaeagttet agettacace cagctgggca cetteatgat geteatcatg tgtateagtt gggetttege eacettettt ttccagtgca tgtgccggtg ccttggacca cagggtacct gtggtcagat tcctttacct aaaaaactac agtgcagtgc cttttcccat gccttgtcta caagtcccag tgacaaggga caaagcaaaa cacataccat aaatgcttat catttagatc ccaggggccc aaaatctgaa ctggagcatg agttttatga attagaacct ctggcttccc acagctgcac tgcccctgag aagaccactt atgaagagac ccacatctgc tctgaatttt tcaacagcca agcaaagaat 1380 ttagggatgc ctgtgcatgc agcttacaac agtgaactca gcaaaagcac tgaaagtgac 1440 actggctctg ccttgttaca gccccctctt gaacagcata ccgtgtgtca cttcttctct 1500 ctgaatcaga gatgtagctg ccccgatgcc tacaaacact tgaactatgg cccacactct tgccagcaga tgggggactg cttgtgccac cagtgctctc ctaccactag cagctttgtc 1620 cagatccaaa acggcgtggc acctctgaag gccacacacc aagctgtcga gggctttgtg 1680 caccccatca cgcacatcca ccactgtccc tgcctgcagg gcagagtaaa gccagccgga atgragaatt ctctgcctag gaattttttc ctccacccag tgcagcacat tcaggcccaa 1800

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gaaaaaattg gcaagaccaa tgtacacagt cttcagagga gcatagaaga gcatcttcca
aagatggcag agccatcgtc atttgtctgc agaagcactg gatcgttact caaaacgtgt
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1980
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ttaatggggg aggctggttg taggtcttgc ccaaataatt cacaaagttg tggcagaatt
gtgagagtga agtgcaattc tgtggactgt caaatgccaa acatggaagc caatgtgcct
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2329
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Xaa Tyr Lys Lys Leu Phe Met Phe Glu Arg Val His His Gly Glu Glu
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Leu His Met Pro Ile Thr Val Ile Trp Gly Val Ser Pro Glu Asp Asn
                                25
Gly Asn Pro Leu Asn Pro Lys Ser Lys Gly Lys Leu Thr Leu Asp Ser
        35
Ser Phe Asn Ile Ala Ser Pro Ala Ser Gln Ala Trp Ile Leu His Phe
                        55
Cys Gln Lys Leu Arg Asn Gln Thr Phe Phe Tyr Gln Thr Asp Glu Gln
                    70
Asp Phe Thr Ser Cys Phe Ile Glu Thr Phe Lys Gln Trp Met Glu Asn
                                    90
                85
Gln Asp Cys Asp Glu Pro Ala Leu Tyr Pro Cys Cys Ser His Trp Ser
                                105
Phe Pro Tyr Lys Gln Glu Ile Phe Glu Leu Cys Ile Lys Arg Ala Ile
                                                 125
                            120
Met Glu Leu Glu Arg Ser Thr Gly Tyr His Leu Asp Ser Lys Thr Pro
                                             140
                        135
Gly Pro Arg Phe Asp Ile Asn Asp Thr Ile Arg Ala Val Val Leu Glu
                                         155
                    150
Phe Gln Ser Thr Tyr Leu Phe Thr Leu Ala Tyr Glu Lys Met His Gln
                                     170
                165
Phe Tyr Lys Glu Val Asp Ser Trp Ile Ser Ser Glu Leu Ser Ser Ala
                                 185
            180
Pro Glu Gly Leu Ser Asn Gly Trp Phe Val Ser Asn Leu Glu Phe Tyr
                                                 205
                            200
Asp Leu Gln Asp Ser Leu Ser Asp Gly Thr Leu Ile Ala Met Gly Leu
                                             220
                        215
Ser Val Ala Val Ala Phe Ser Val Met Leu Leu Thr Thr Trp Asn Ile
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235
               230
225
Ile Ile Ser Leu Tyr Ala Ile Ile Ser Ile Ala Gly Thr Ile Phe Val
                 250
Thr Val Gly Ser Leu Val Leu Leu Gly Trp Glu Leu Asn Val Leu Glu
                          265
         260
Ser Val Thr Ile Ser Val Ala Val Gly Leu Ser Val Asp Phe Ala Val
                       280
His Tyr Gly Val Ala Tyr Arg Leu Ala Pro Asp Pro Asp Arg Glu Gly
  290 295
                                    300
Lys Val Ile Phe Ser Leu Ser Arg Val Gly Ser Ala Met Ala Met Ala
       310
                                 315
Ala Leu Thr Thr Phe Val Ala Gly Ala Met Met Ile Pro Ser Thr Val
             325
                             330
Leu Ala Tyr Thr Gln Leu Gly Thr Phe Met Met Leu Ile Met Cys Ile
                          345
         340
Ser Trp Ala Phe Ala Thr Phe Phe Phe Gln Cys Met Cys Arg Cys Leu
                      360
Gly Pro Gln Gly Thr Cys Gly Gln Ile Pro Leu Pro Lys Lys Leu Gln
                   375
                                    380
Cys Ser Ala Phe Ser His Ala Leu Ser Thr Ser Pro Ser Asp Lys Gly
                                395
385 390
Gln Ser Lys Thr His Thr Ile Asn Ala Tyr His Leu Asp Pro Arg Gly
                             410
            405
Pro Lys Ser Glu Leu Glu His Glu Phe Tyr Glu Leu Glu Pro Leu Ala
                                           430
                          425
Ser His Ser Cys Thr Ala Pro Glu Lys Thr Thr Tyr Glu Glu Thr His
                      440
Ile Cys Ser Glu Phe Phe Asn Ser Gln Ala Lys Asn Leu Gly Met Pro
                                    460
                   455
Val His Ala Ala Tyr Asn Ser Glu Leu Ser Lys Ser Thr Glu Ser Asp
                                 475
                 470
Thr Gly Ser Ala Leu Leu Gln Pro Pro Leu Glu Gln His Thr Val Cys
                              490
             485
His Phe Phe Ser Leu Asn Gln Arg Cys Ser Cys Pro Asp Ala Tyr Lys
                           505
His Leu Asn Tyr Gly Pro His Ser Cys Gln Gln Met Gly Asp Cys Leu
                                        525
                       520
Cys His Gln Cys Ser Pro Thr Thr Ser Ser Phe Val Gln Ile Gln Asn
                    535
                                     540
Gly Val Ala Pro Leu Lys Ala Thr His Gln Ala Val Glu Gly Phe Val
                550
                                 555
 His Pro Ile Thr His Ile His His Cys Pro Cys Leu Gln Gly Arg Val
                              570
           565
 Lys Pro Ala Gly Met Gln Asn Ser Leu Pro Arg Asn Phe Phe Leu His
                           585
          580
 Pro Val Gln His Ile Gln Ala Gln Glu Lys Ile Gly Lys Thr Asn Val
                       600
 His Ser Leu Gln Arg Ser Ile Glu Glu His Leu Pro Lys Met Ala Glu
                   615
                                     620
 Pro Ser Ser Phe Val Cys Arg Ser Thr Gly Ser Leu Leu Lys Thr Cys
                                 635 . 640
               630
 Cys Asp Pro Glu Asn Lys Gln Arg Glu Leu Cys Lys Asn Arg Asp Val
              645 650
 Ser Asn Leu Glu Ser Ser Gly Gly Thr Glu Asn Lys Ala Gly Gly Lys
```

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665
                                                    670
            660
Val Glu Leu Ser Leu Ser Gln Thr Asp Ala Ser Val Asn Ser Glu His
                            680
Phe Asn Gln Asn Glu Pro Lys Val Leu Phe Asn His Leu Met Gly Glu
                                            700
                        695
Ala Gly Cys Arg Ser Cys Pro Asn Asn Ser Gln Ser Cys Gly Arg Ile
                                        715
                    710
Val Arg Val Lys Cys Asn Ser Val Asp Cys Gln Met Pro Asn Met Glu
                                    730
                725
Ala Asn Val Pro Ala Val Leu Thr His Ser Glu Leu Ser Gly Glu Ser
                                745
            740
Leu Leu Ile Lys Thr Leu
        755
<210> 2115
<211> 461
<212> DNA
<213> Homo sapiens
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acgegtetet ggeetgggag egggeteece egacaegeea eetteeetge eagatggtge
ttctgggtat tccagaatct ggaatggggg atgcctatcc ccctcctgag cccacctgct
ggtcttgggt ccttggagcc caccaagtcc acaaccacct gctctgaata gaaagctgac
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tgtgtgcctt tctgtggtca tttctcgagt cctctgccgg ctgctgccag gtgaaggcat
ctccatgccc agccggtggg cagctggggc gggtggacct ccagcttctg cccgacgggg
ttcagatgac cgagatccta cgggattgcc aatgtgtggg gacggggggc tttcaggggc
gggaaaacat gtccccatcc gtgggaagtg gagccacgtg g
461
<210> 2116
<211> 146
<212> PRT
<213> Homo sapiens
<400> 2116
Met Gly Thr Cys Phe Pro Ala Pro Glu Ser Pro Pro Ser Pro His Ile
                                     10
Gly Asn Pro Val Gly Ser Arg Ser Ser Glu Pro Arg Arg Ala Glu Ala
                                 25
Gly Gly Pro Pro Ala Pro Ala Ala His Arg Leu Gly Met Glu Met Pro
                             40
 Ser Pro Gly Ser Ser Arg Gln Arg Thr Arg Glu Met Thr Thr Glu Arg
                         55
His Thr Pro Ala Pro Ser His Ser Ser Pro Gln Ile Ser Pro Ser Asp
                     70
                                         75
 Ala Ala Val Arg Phe Asn Val Ser Phe Leu Phe Arg Ala Gly Gly Cys
```

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90
Gly Leu Gly Gly Leu Gln Gly Pro Lys Thr Ser Arg Trp Ala Gln Glu
                               105
            100
Gly Asp Arg His Pro Pro Phe Gln Ile Leu Glu Tyr Pro Glu Ala Pro
                                                125
                            120
        115
Ser Gly Arg Glu Gly Gly Val Ser Gly Glu Pro Ala Pro Arg Pro Glu
                        135
    130
Thr Arg
145
<210> 2117
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<212> DNA
<213> Homo sapiens
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cgcgccagcg ttaagacctt ctcgcgggct gtcaccgccg atctggagaa gtgtggaccg
atcaggtgac actcgcggta gactgaatag atgcctgagt ctgaagacac tgtgtggctg
acccaagagg cettegataa geteacccag gagetggagt aceteaaagg egaaggeege
acceptcatte ccaacaagat tecegacecc cettcegaag ececttic teagaaceec
ggctaccatg ccgcccgtga ggagcagggg caggccgagg cccgcatccg tcaactcgag
360
<210> 2118
<211> 70
<212> PRT
<213> Homo sapiens
 <400> 2118
Met Pro Glu Ser Glu Asp Thr Val Trp Leu Thr Gln Glu Ala Phe Asp
                  5
                                     10
 1
Lys Leu Thr Gln Glu Leu Glu Tyr Leu Lys Gly Glu Gly Arg Thr Val
             20
 Ile Ala Asn Lys Ile Ala Asp Ala Arg Ser Glu Gly Asp Leu Ser Glu
                                                 45
                             40
 Asn Gly Gly Tyr His Ala Ala Arg Glu Glu Gln Gly Gln Ala Glu Ala
 Arg Ile Arg Gln Leu Glu
                     70
 65
 <210> 2119
 <211> 465
 <212> DNA
 <213> Homo sapiens
 <400> 2119
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egeceegece ttgeettgge gttgtetetg geactgtgge ggaetgaeca eggeceggge
120
atgggctgca agggagacgc gagcggagtt tgctataaaa tgggagttct ggttgtactc
actgttctgt ggctgttctc ctcagtaaag gccgactcaa aagccattac aacctctctt
acaacaaaat ggttttccac tccattgttg ttagaagcca gtgagttttt agcagaagac
agtcaagaga aattttggaa ttttgtagaa gccagtcaaa atattggatc atcagatcat
360
gacggtaccg attattccta ctatcatgca atattggagg ctgcatttca gtttctgtca
420
cccctccagc agaatttgtt taaattttgt ctgtcccttc acgcg
<210> 2120
<211> 115
<212> PRT
<213> Homo sapiens
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Met Gly Cys Lys Gly Asp Ala Ser Gly Val Cys Tyr Lys Met Gly Val
                                     10
Leu Val Val Leu Thr Val Leu Trp Leu Phe Ser Ser Val Lys Ala Asp
            20
Ser Lys Ala Ile Thr Thr Ser Leu Thr Thr Lys Trp Phe Ser Thr Pro
                             40
Leu Leu Glu Ala Ser Glu Phe Leu Ala Glu Asp Ser Gln Glu Lys
                         55
    50
Phe Trp Asn Phe Val Glu Ala Ser Gln Asn Ile Gly Ser Ser Asp His
                                         75
                     70
Asp Gly Thr Asp Tyr Ser Tyr Tyr His Ala Ile Leu Glu Ala Ala Phe
                                     90
                 85
Gln Phe Leu Ser Pro Leu Gln Gln Asn Leu Phe Lys Phe Cys Leu Ser
                                 105
             100
 Leu His Ala
         115
 <210> 2121
 <211> 336
 <212> DNA
 <213> Homo sapiens
 <400> 2121
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 tgtggtcctc cttatgaaac taatggccct aaaacctttt acattttggt agtcagaagt
 120
 ggaggttctt ttgttacaaa atacaacaag acaaactgtc agttttatgt agataatctc
 tactattcaa ctgactatga gtttctggtc tcttttcaca atggagtgta cgagggagat
 tcagttataa gaaatgagtc aacaaatttt aatgctaaag ccctgattat attcctggtg
 300
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tttctgatta ttgtgacatc aatagccttg cttgtt
336
<210> 2122
<211> 112
<212> PRT
<213> Homo sapiens
<400> 2122
Pro Asp Lys Val Asn Gly Met Lys Thr Ser Arg Pro Thr Asp Asn Ser
                                    10
1
Ile Asn Val Thr Cys Gly Pro Pro Tyr Glu Thr Asn Gly Pro Lys Thr
Phe Tyr Ile Leu Val Val Arg Ser Gly Gly Ser Phe Val Thr Lys Tyr
        35
Asn Lys Thr Asn Cys Gln Phe Tyr Val Asp Asn Leu Tyr Tyr Ser Thr
Asp Tyr Glu Phe Leu Val Ser Phe His Asn Gly Val Tyr Glu Gly Asp
                                        75
                    70
Ser Val Ile Arg Asn Glu Ser Thr Asn Phe Asn Ala Lys Ala Leu Ile
                                    90
Ile Phe Leu Val Phe Leu Ile Ile Val Thr Ser Ile Ala Leu Leu Val
            100
<210> 2123
<211> 426
<212> DNA
<213> Homo sapiens
<400> 2123
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cagcaactga ccgacgaact ggaagcgatg ctctgcgccg ccacaggtta tgacgcgatc
teeetgeage egaacgetgg eteeeaggge gagtaegeeg gtetgetgge gateegeget
taccaccaga geogtggega tgagegtege gacatetgee tgatteegte etetgeeeac
ggcaccaacc cggcaaccgc caacatggcc ggcatgcgcg tggtcgtgac cgcttgcgac
gecegeggea acgtegaeat egaagaeetg egegeeaagg etategagea eegegaaeae
ctegeggege tgatgateae etaceegteg acceaeggeg tgttegaaga aggeateege
420
gagatc
426
<210> 2124
<211> 142
<212> PRT
<213> Homo sapiens
Asn Trp Ala Glu Phe Gly Asn Leu His Pro Phe Ala Pro Ala Glu Gln
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10
Ser Ala Gly Tyr Gln Gln Leu Thr Asp Glu Leu Glu Ala Met Leu Cys
                               25
           20
Ala Ala Thr Gly Tyr Asp Ala Ile Ser Leu Gln Pro Asn Ala Gly Ser
Gln Gly Glu Tyr Ala Gly Leu Leu Ala Ile Arg Ala Tyr His Gln Ser
                        55
Arg Gly Asp Glu Arg Arg Asp Ile Cys Leu Ile Pro Ser Ser Ala His
                                        75
                   70
Gly Thr Asn Pro Ala Thr Ala Asn Met Ala Gly Met Arg Val Val
                                   90
Thr Ala Cys. Asp Ala Arg Gly Asn Val Asp Ile Glu Asp Leu Arg Ala
                               105
           100
Lys Ala Ile Glu His Arg Glu His Leu Ala Ala Leu Met Ile Thr Tyr
                           120
Pro Ser Thr His Gly Val Phe Glu Glu Gly Ile Arg Glu Ile
    130
                        135
<210> 2125
<211> 285
<212> DNA
<213> Homo sapiens
<400> 2125
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acagtcaagc ccaatatggt tatgttacct attcaaaaca caagaggttc aagattggtt
ctaaaggcgg ctgaagacgc ggcaccaccg gctgtcaccg ttgaagcggc caaggaagag
aageegaage caccaccaat tggacctaag agaggageca aggtgagaat tettaggaag
gagtcatact ggttcaaagg agtgggatca gttgtgactg ttgat
<210> 2126
<211> 95
<212> PRT
<213> Homo sapiens
<400> 2126
Xaa Met Ala Ser Ala Ala Ser Ser Phe Val Val Thr Pro Asn Val Thr
                                    10
                5
Ser Asn Thr Thr Thr Val Lys Pro Asn Met Val Met Leu Pro Ile Gln
                                25
Asn Thr Arg Gly Ser Arg Leu Val Leu Lys Ala Ala Glu Asp Ala Ala
                            40
Pro Pro Ala Val Thr Val Glu Ala Ala Lys Glu Glu Lys Pro Lys Pro
Pro Pro Ile Gly Pro Lys Arg Gly Ala Lys Val Arg Ile Leu Arg Lys
                    70
Glu Ser Tyr Trp Phe Lys Gly Val Gly Ser Val Val Thr Val Asp
                                    90
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<211> 454
<212> DNA
<213> Homo sapiens
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120
atgcagtact gcatgatgca acaggggctt gccagcttga tggcgtgtcc gtccctgatg
180
ctgcagcaac tgttggcctt accgcttcag acgatgccag tgatgatgcc acagatgatg
acgcctaaca tgatgtcacc attgatgatg ccgagcatga tgtcaccaat ggtcttgccg
agcatgatgt cgcaaatgat gatgccacaa tgtcactgcg acgccgtctc gcagattatg
360
ctgcaacagc agttaccatt catgttcaac ccaatggcca tgacgattcc acccatgttc
ttacagcaac cetttgttgg tgctgcattc taga
454
<210> 2128
<211> 150
<212> PRT
<213> Homo sapiens
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Met Ala Ala Lys Met Leu Ala Leu Phe Ala Leu Leu Ala Leu Cys Ala
                                    10
Ser Ala Thr Ser Ala Thr His Ile Pro Gly His Leu Ser Pro Val Met
                                 25
            20
Pro Leu Gly Thr Met Asn Pro Cys Met Gln Tyr Cys Met Met Gln Gln
                             40
Gly Leu Ala Ser Leu Met Ala Cys Pro Ser Leu Met Leu Gln Gln Leu
                         55
Leu Ala Leu Pro Leu Gln Thr Met Pro Val Met Met Pro Gln Met Met
                     70
 Thr Pro Asn Met Met Ser Pro Leu Met Met Pro Ser Met Met Ser Pro
                                     90
 Met Val Leu Pro Ser Met Met Ser Gln Met Met Pro Gln Cys His
                                 105
             100
 Cys Asp Ala Val Ser Gln Ile Met Leu Gln Gln Leu Pro Phe Met
                             120
 Phe Asn Pro Met Ala Met Thr Ile Pro Pro Met Phe Leu Gln Gln Pro
                                             140
                         135
 Phe Val Gly Ala Ala Phe
 145
 <210> 2129
 <211> 354
 <212> DNA
 <213> Homo sapiens
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<400> 2129
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actatcaagg ctctccactc caaatatggg atcggtgaac tcatccgtgc cttcagtcgg
gtccatgatg aacggcctaa taccgtcctt cgtatctggg gcggcggccc agacgagaat
cccctcaagg tcttggctcg ccgtcttgtc ccggacggtt cggtggagtt tcgcggtgcc
attgatcatt ctgaggtcag aaatgccttg ggtagtttgg acatctttgc cgcc
<210> 2130
<211> 118
<212> PRT
<213> Homo sapiens
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Thr Arg Asp Leu Val Asn Lys Pro Ile Ser Ile Thr Pro Phe Gly Val
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Asp Thr Glu Ile Leu Thr Pro Phe Asp Lys Arg Arg Asp Ala Asn Gly
Gly Asp Gly Val Val Arg Ile Gly Thr Ile Lys Ala Leu His Ser Lys
Tyr Gly Ile Gly Glu Leu Ile Arg Ala Phe Ser Arg Val His Asp Glu
                        55
Arg Pro Asn Thr Val Leu Arg Ile Trp Gly Gly Gly Pro Asp Glu Asn
                                         75
                     70
Pro Leu Lys Val Leu Ala Arg Arg Leu Val Pro Asp Gly Ser Val Glu
                                    90
Phe Arg Gly Ala Ile Asp His Ser Glu Val Arg Asn Ala Leu Gly Ser
            100
Leu Asp Ile Phe Ala Ala
        115
<210> 2131
<211> 324
<212> DNA
<213> Homo sapiens
<400> 2131
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ccagacagtc attatgatgg tttgttacag ctgggcgagt ggggctttcg aatcaatgac
ctgatgaaga cggtagaggg cgcggcaggg tgcattgagt attatgaaat gctcaacgaa
caacgccccg acttgtctta tgacatagac ggtattgttt ataaagttga tcagattgac
ctgcaagaag agcttggttt tattgctcgt gcgccacgct gggcaattgc tcgaaaattt
```

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cctqctcaag aagaagttac gcgt
<210> 2132
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2132
Ala Ser Arg Pro Leu Val Met Cys Ala Tyr Ser Ile Gly Tyr Val Glu
                                    10
                5
1
Gly Trp Asp Gln Pro Asp Ser His Tyr Asp Gly Leu Leu Gln Leu Gly
                                25
            20
Glu Trp Gly Phe Arg Ile Asn Asp Leu Met Lys Thr Val Glu Gly Ala
                           40
Ala Gly Cys Ile Glu Tyr Tyr Glu Met Leu Asn Glu Gln Arg Pro Asp
                        55
Leu Ser Tyr Asp Ile Asp Gly Ile Val Tyr Lys Val Asp Gln Ile Asp
                                        75
                    70
Leu Gln Glu Glu Leu Gly Phe Ile Ala Arg Ala Pro Arg Trp Ala Ile
                                    90
Ala Arg Lys Phe Pro Ala Gln Glu Glu Val Thr Arg
<210> 2133
<211> 292
<212> DNA
<213> Homo sapiens
<400> 2133
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gtggctgtct ttagaggacc cggcgaactt ttcctgcttt ttcccacttg ctccatcaca
tacatcacat caccaacacc catcacatac atacacagtc atgaacggcc atcaggccac
accagattac atogotytyg atocaaccot goattttcct goocctcott tactgogagt
gtcacctcta cccggaaagg tcttcaacct ccaagtttcc cagtaattta tt
292
 <210> 2134
 <211> 93
 <212> PRT
 <213> Homo sapiens
 <400> 2134
 Met Val Leu His Asp Met Asn Lys Phe Phe Leu Thr Leu Asn Ser Leu
                                     10
 Val Ala Val Phe Arg Gly Pro Gly Glu Leu Phe Leu Leu Phe Pro Thr
                                 25
             20
 Cys Ser Ile Thr Tyr Ile Thr Ser Pro Thr Pro Ile Thr Tyr Ile His
 Ser His Glu Arg Pro Ser Gly His Thr Arg Leu His Arg Cys Gly Ser
```

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60

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55
Asn Pro Ala Phe Ser Cys Pro Ser Phe Thr Ala Ser Val Thr Ser Thr
                                       75
                    70
Arg Lys Gly Leu Gln Pro Pro Ser Phe Pro Val Ile Tyr
<210> 2135
<211> 439
<212> DNA
<213> Homo sapiens
<400> 2135 .
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actecgageg tegaceaaat egagatgeat ecetegttea accaggegae etteegegea
gagetggeeg agegeggeat taacceggag geetggagee egetgggeea gtegaaggae
ctcgacaatc ccgtcctcac cgatatttcc aaggcgactg gaaagacgcc tgcccaggtg
gtcattcgct ggcacctgca gatcggcaac gtggtattcc ccaagtcggt gacaccatca
cgaattgccg agaactttga tgtgttcgat ttcgagctgt ctgacgagca gatcgccgca
attgatggcc tggatcacgg caacaggctc ggtggtgacc cttctaccgc cgacttctga
ttctgcaaca ataaccggt
439
<210> 2136
<211> 139
<212> PRT
<213> Homo sapiens
<400> 2136
Thr Arg Ser Ile Gly Val Ser Asn Phe Lys Thr Glu His Leu Asp Ala
                  5
Ile Glu Gly Ala Thr Pro Ser Val Asp Gln Ile Glu Met His Pro Ser
                                 25
 Phe Asn Gln Ala Thr Phe Arg Ala Glu Leu Ala Glu Arg Gly Ile Asn
                             40
 Pro Glu Ala Trp Ser Pro Leu Gly Gln Ser Lys Asp Leu Asp Asn Pro
                                             60
                         55
 Val Leu Thr Asp Ile Ser Lys Ala Thr Gly Lys Thr Pro Ala Gln Val
                                         75
                     70
 Val Ile Arg Trp His Leu Gln Ile Gly Asn Val Val Phe Pro Lys Ser
                                     90
 Val Thr Pro Ser Arg Ile Ala Glu Asn Phe Asp Val Phe Asp Phe Glu
                                 105
             100
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 Arg Leu Gly Gly Asp Pro Ser Thr Ala Asp Phe
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aagaaggagg agctgaagga gttccagctt ctgctcgcca ataaagcgca ctccaggagc
tetteeggtg agacaceege teagecagag aagacgagtg geatggaggt ggeetegtae
ctggtggctc agtatgggga gcagcgggcc tgggacctag ccctccatac ctgggagcag
atggggctga ggtcactgtg cgcccaagcc
330
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<211> 86
<212> PRT
<213> Homo sapiens
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Lys Lys Glu Glu Leu Lys Glu Phe Gln Leu Leu Ala Asn Lys Ala
                                25
            20
His Ser Arg Ser Ser Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr
                            40
Ser Gly Met Glu Val Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln
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Arg Ala Trp Asp Leu Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg
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Ser Leu Cys Ala Gln Ala
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geogeoggtg coccgaacga cotgotggac cagogcagog aggoggtgcg coagttgtcc
gagctggtcg ggacccaggt ggtccagcgc ggttcgagtt atgacgtcta tatcggcagc
240
ggtcagcgcc tggtgatggg caacagcacc aacaccctgt ccgcagtgcc gagcaaggac
300
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gacccgagcc agtcggcctt gcagctggat cgcggcacca gcaccgtcga tatcacctcc
acqqtqaccq gtgqcgagat cggtggtctg ctgcgctatc gcagcgatgt gctcgacccg
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            20
                                25
Asp Gln Ile Ser Lys Val Thr Thr Ala Ala Gly Ala Pro Asn Asp Leu
                          . 40
Leu Asp Gln Arg Ser Glu Ala Val Arg Gln Leu Ser Glu Leu Val Gly
                        55
Thr Gln Val Val Gln Arg Gly Ser Ser Tyr Asp Val Tyr Ile Gly Ser
                                         75
65
                    70
Gly Gln Arg Leu Val Met Gly Asn Ser Thr Asn Thr Leu Ser Ala Val
                                    90
                85
Pro Ser Lys Asp Asp Pro Ser Gln Ser Ala Leu Gln Leu Asp Arg Gly
                                                     110
                                105
Thr Ser Thr Val Asp Ile Thr Ser Thr Val Thr Gly Gly Glu Ile Gly
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Gly Leu Leu Arg Tyr Arg Ser Asp Val Leu Asp Pro Ser Ile Asn Ala
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gcggttggct tggatactaa agtggtcgac ctttgtttca aaggcgttgc aagtcgtatc
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cacgcg
426
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                 5
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Met Val Asp Lys Gly Glu Val Leu Gly Asp Pro Ile Ala Cys His Val
                                                45
                             40
Lys Tyr Arg Lys Gly Ile Asn Lys Gly Leu Met Lys Ile Leu Ser Lys
Met Gly Ile Ser Thr Ile Ala Ser Tyr Arg Gly Ala Gln Leu Phe Glu
                                         75
                    70
Ala Val Gly Leu Asp Thr Lys Val Val Asp Leu Cys Phe Lys Gly Val
Ala Ser Arg Ile Lys Gly Ala Arg Phe Glu Asp Phe Gln Arg Asp Gln
                                 105
             100
Ala Thr Ile Ala Asn Asn Ala Trp Lys Leu Arg Lys Pro Ile Gln Gln
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Gly Gly Tyr Leu Lys Tyr Val His Asp Ser Glu Tyr His Ala
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  atcacgagaa agacggtgat gacggatctg cccatcgcga cgatgaggcg ggagatcggc
  ctgtccaacg acgggttgtg cctcacaccg tggaaggtca agacgacttc ttccgaggag
  geteggtggg egatgeagge getggeeagt geegacetat, teageaatge taaggaegee
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389
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 Ile His Glu His Leu Phe Ser Ser Ala Gln Pro Ser Ala Glu Gln Leu
                                 25
 Lys Leu Ile Lys Glu Phe Gly Cys Ser Thr Val Ile Asn Leu Ala Leu
                             40
 Thr Asn Ala Ser Asn His Leu Glu Asn Glu Asp Arg Ile Cys Leu Asp
 Leu Gly Leu Asn Tyr Ile His Ile Pro Ile Asp Trp Glu Met Pro Ser
                                          75
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 Ala Glu Gln Cys Leu Leu Val Leu Asp Leu Ile Asp His Leu Val Gln
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 Asn Glu Ile Val Trp Ile His Cys Ala Lys Asn Lys Arg
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1200
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1320
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Ser Gln Val Thr Phe Pro Ile Asp Phe Phe Glu His Asn Gln Gln Leu
                                 25
Thr Asp Val Glu Phe Gly Gly Asn Asp Leu Leu Gln Val Tyr Asn Ala
Gln Gln Ile Lys His Arg Leu Asn Ser Thr Gly Met Tyr Val Ala Asn
                                             60
                         55
Thr Lys Pro Gly Gly Phe Thr Ile Glu Ile Ser Asn Asn Asn Ser Thr
                                         75
 Met Val Met Thr Gly Met Arg Ile Gln Ile Gly Thr Gln Ala Ile Glu
                 85
 Arg Ala Pro Ser Tyr Ile Glu Ile Phe Gly Arg Thr Met Gln Leu Asn
                                                      110
                                 105
             100
 Leu Ser Arg Ser Arg Trp Phe Asp Phe Pro Phe Thr Arg Glu Glu Ala
                                                  125
                             120
 Leu Gln Ala Asp Lys Lys Leu Asn Leu Phe Ile Gly Ala Ser Val Asp
                         135
 Pro Ala Gly Val Thr Met Ile Asp Ala Val Lys Ile Tyr Gly Lys Thr
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155
                    150
145
Lys Glu Gln Phe Gly Trp Pro Asp Glu Pro Pro Glu Glu Phe Pro Ser
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Ala Ser Val Ser Asn Ile Cys Pro Ser Asn Leu Asn Gln Ser Asn Gly
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            180
Thr Gly Asp Ser Asp Ser Ala Ala Pro Thr Thr Thr Ser Gly Thr Val
                            200
                                                 205
        195
Leu Glu Arg Leu Val Val Ser Ser Leu Glu Ala Leu Glu Ser Cys Phe
                                             220
                        215
Ala Val Gly Pro Ile Ile Glu Lys Glu Arg Asn Lys Asn Ala Ala Gln
                                        235
                    230
225
Glu Leu Ala Thr Leu Leu Leu Ser Leu Pro Ala Pro Ala Ser Val Gln
                                    250
                245
Gln Gln Ser Lys Ser Leu Leu Ala Ser Leu His Thr Ser Arg Ser Ala
                                265
            260
Tyr His Ser His Lys Val Thr Val Leu Ser Gly Lys Gly Asn Cys Ser
                            280
                                                 285
Ala Asp Arg Glu Ser Asn Lys Leu Ala Leu His Cys Lys Ala Thr Ala
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Gln Gln Ser Lys Val Glu Gly Gly
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ggtagcgcgt tgagccaggt gttcgacgcg t
511
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 <211> 170
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 <213> Homo sapiens
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Met Asp Gln Phe His Gln Ser Leu Xaa Gly Cys Arg Arg Xaa Arg Gln
                                25
His Phe His His Phe Met Gly Trp Val His Gln Arg Ser Phe Gln Leu
                            40
Thr Gly Ile Ala Asp Pro Leu Arg Ala Leu Ala Arg Glu Leu Ala Ala
Glu Val Arg Val Leu Cys Phe Asp Glu Leu Phe Val Asn Asp Ile Gly
                                        75
Asp Ala Ile Ile Leu Gly Arg Leu Phe Gln Val Met Phe Asp Ala Gly
                                    90
Val Val Val Cys Thr Ser Asn Leu Pro Pro Asp Gln Leu Tyr Ala
                                105
Asp Gly Phe Asn Arg Asp Arg Phe Leu Pro Ala Ile Thr Ala Ile Lys
                             120
Gln His Met Gln Val Val Ala Val Asn Gly Ala Glu Asp His Arg Leu
                         135
His Pro Gly Ala Ile Glu Gln Arg Tyr Trp Val Ala Leu Pro Glu Gln
                                                             160
                                         155
                     150
Gly Ser Ala Leu Ser Gln Val Phe Asp Ala
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 <210> 2154
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Met Ser Val Asp Pro Gln His Leu Leu Arg Glu Leu Phe Ala Thr Ala

<400> 2154

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Ile Asp Ala Ala His Pro Arg His Val Leu Glu Pro Tyr Leu Pro Ala
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Asp Arg Thr Gly Arg Val Ile Val Ile Gly Pro Gly Lys Thr Ala Pro
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Ala Met Ala Leu Val Val Glu Asn Gly Trp Gln Gly Glu Val Thr Gly
Leu Val Val Thr Arg Tyr Gly His Gly Ala Pro Cys Lys Lys Ile Glu
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Val Val Glu Ala Ala His Pro Val Pro Asp Ala Ala Gly Leu Ala Val
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<212> DNA
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180
gegegegaac tggeggecaa tgaetteaaa taetgggage tgatgegaeg egeetgtgeg
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<212> PRT
<213> Homo sapiens
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Cys Glu Val Leu Thr Val Thr Asp Ser Glu Gly Asn Pro Leu Ser Ser
                                25
Val Leu Ser Phe Tyr Phe Arg Asp Glu Val Leu Pro Tyr Tyr Ala Gly
                            40
Asp Ala Val Ala Ala Arg Glu Leu Ala Ala Asn Asp Phe Lys Tyr Trp
Glu Leu Met Arg Arg Ala Cys Ala Arg Gly Leu Lys Val Phe Asp Tyr
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Gly Arg Ser Lys Gln Gly Thr Gly Ser Tyr Ala
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<210> 2157
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<400> 2157

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Pro Leu Ser Ala Leu Ala Arg Ile Ala Asn Arg Glu His Arg Asp Ile
Glu Val Gly Glu Gly Asp Thr Val Leu Leu Ala Ser Ser Leu Ile Pro
Gly Asn Glu Asn Ala Val Tyr Arg Val Ile Asn Gly Leu Thr Lys Leu
                         55
Gly Ala Ala Val Val His Lys Gly Asn Ala Leu Val His Val Ser Gly
                    70
His Ala Ala Ala Gly Glu Leu Leu Tyr Ala Tyr Asn Ile Val Arg Pro
                                     90
Arg Ala Val Met Pro Ile His Gly Glu Val Arg His Leu Val Ala Asn
                                 105
Ala Asp Leu Ala Lys Ala Thr Gly Val Asp Glu Asn Asn Val Val Leu
                             120
                                                 125
Val Glu Asp Gly Gly Val Ile Asp Leu Val Asp Gly Val Pro Arg Val
                         135
Val Gly Lys Val Asp Ala Ser Tyr Ile Leu Val Asp Gly Ser Gly Val
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                     150
Gly Glu Leu Thr Glu Asp Thr Leu Thr Asp Arg Arg Ile Leu Gly Glu
                                     170
 Glu Gly Phe Leu Ser Val Val Thr Val Val Asp Thr Arg Ser Ala Ser
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185
                                                    190
Val Val Ser Arg Pro Ala Ile Gln Ala Arg Gly Phe Ala Glu Gly Asp
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Ser Val Phe Ala Glu Ile Thr Asp Gln Ile Val Thr Glu Leu Glu Lys
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                                           220
Ala Met Ala Gly Gly Met Asp Asp Thr His Arg Leu Gln
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<212> DNA
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                                25
Lys Lys Cys Pro Gln Gly Arg Glu Asp Ser Gly Pro Gly Ser Glu Leu
                            40
Ser Pro Thr Ile Cys Arg Asp Asn Phe Ser Lys Gln Val Glu Gly Asn
Arg Leu Leu Leu His Lys Ala Leu Pro Gly Arg Pro Trp Ser Cys Cys
                   70
                                        75
Pro Ala Ser Trp Cys Pro Phe Thr Arg Cys Arg Leu Ser Arg Gly Trp
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Ser Val Leu Ala
           100
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<212> DNA
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gtggggatat gaggggagga aacctcaaaa agaatatgta tccatcacta tgaaaggtta
120
ggctatacag gggaagcctc caaagggaaa tctggaaaaa tgttctgaga gggacattaa
ggatgtactc agaaattaag aaaacatatt aggacttgcc aaaagtgaga gaagcaactg
240
aggagactta tatgcaaaaa tcgcaaagaa ggagagaaca aaagatggag gttggatgct
aaatagggaa agagaacgcg tgaatgaggt agggggcaga acatgcagtg cagaaaaaca
acagatatgg aagggcatta aagagggcta aatgggaata ttaggaaatg agagttggga
atttgtcaga gttgtgtatt aacaaggaga gggtaaggta agaaggtggc aaagtaagag
ccagggcata aggttttgct gtccaggaag ctttgttgga aaaatgttag aagtaatggg
tttggtcagt atggtgagag gtgagagagg ctaaatggga tgggcataaa gggcaggcca
gtggcaagaa teetatgaaa gtgtaggcag atetgagage acagacaaat acagtggaga
atgtggcaca gggcagaggg cagtgggctg agcagcgagt gcccatgggg aggggagtat
ccagaagaac ccattgagtc cctaagaatg acacacaggt gacagctgaa agaaggaggg
780
 acacagaaga tatagcagca tgattctctg gggcaaaatg aggaagaaag gaatggaaga
 agaaagtgaa gggttcctgc tgatgtgagg ggatgactgg aggaaaggca ggtattgact
 ggggggtaaa ggaaccattc ttggatcaag gttatgatgg aataagaagg aagagagagc
 960
 tggctagctg agtaaaggac catcgtataa aacagacaaa agttaagact agatggagtg
 1020
 gcaactaggc agatcagatg tatttttaaa aggggaaact gctaagatct
 1070
 <210> 2162
 <211> 145
 <212> PRT
 <213> Homo sapiens
 <400> 2162
 Met Val Leu Tyr Ser Ala Ser Gln Leu Ser Leu Pro Ser Tyr Ser Ile
 Ile Thr Leu Ile Gln Glu Trp Phe Leu Tyr Pro Pro Val Asn Thr Cys
```

60

75

Leu Ser Ser Ser His Pro Leu Thr Ser Ala Gly Thr Leu His Phe Leu

35

40

45

Leu Pro Phe Leu Ser Ser Ser Phe Cys Pro Arg Glu Ser Cys Cys Tyr

Ile Phe Cys Val Pro Pro Ser Phe Ser Cys His Leu Cys Val Ile Leu

Arg Asp Ser Met Gly Ser Ser Gly Tyr Ser Pro Pro His Gly His Ser

55

```
90
               85
Leu Leu Ser Pro Leu Pro Ser Ala Leu Cys His Ile Leu His Cys Ile
                              105
           100
Cys Leu Cys Ser Gln Ile Cys Leu His Phe His Arg Ile Leu Ala Thr
                                              125
                          120
Gly Leu Pro Phe Met Pro Ile Pro Phe Ser Leu Ser His Leu Ser Pro
                                          140
                       135
    130
Tyr
145
<210> 2163
<211> 657
<212> DNA
<213> Homo sapiens
<400> 2163
tatttaaatc tttataaaaa aggtaggagg atcaggactt cgaccccctt aaaacgcggc
tggttccggg ttggaaggtt gggtgaaatg ggaaccgaat accaatttca cccgggaacc
agtaatgccc atgataaccg ccaagttggg accgaagttg ggatccataa gtacgggcgg
240
ccagtggggt ggaattgggt taagccccct cccagccttt ctccgaccgc gtgctccgtc
agacatgcca agaggetete tetecaggag agecacetgt gaaacecace eggeatgete
ctcccaccac tgtgcacaga cgagtgcctg ggctccagag agggagggag ctgaaggcct
cagacaggag teegteeegt ecagteecat cateecaaga aacateegge eegaeteeet
gcagctccat ggctcaacaa ggtgcggatg cctgctggac ctggctgctt tccatccaac
 tttgatccct tccccaagag gaagagtgct acctagggac aagtgtggtg cgcacaggca
 tgcagcctgg tctcttgctc aggcggcttg cgcagattcc tagaggaatc tgcagcg
 657
 <210> 2164
 <211> 152
 <212> PRT
 <213> Homo sapiens
 <400> 2164
 Met/Pro Met Ile Thr Ala Lys Leu Gly Pro Lys Leu Gly Ser Ile Ser
                                   10
 Thr Gly Gly Gln Trp Gly Gly Ile Gly Leu Ser Pro Leu Pro Ala Phe
                                25
 Leu Arg Pro Arg Ala Pro Ser Asp Met Pro Arg Gly Ser Leu Ser Arg
                            40
 Arg Ala Thr Cys Glu Thr His Pro Ala Cys Ser Ser His His Cys Ala
                        55
 Gln Thr Ser Ala Trp Ala Pro Glu Arg Glu Gly Ala Glu Gly Leu Arg
```

```
75
                    70
65
Gln Glu Ser Val Pro Ser Ser Pro Ile Ile Pro Arg Asn Ile Arg Pro
                                    90
Asp Ser Leu Gln Leu His Gly Ser Thr Arg Cys Gly Cys Leu Leu Asp
                                105
            100
Leu Ala Ala Phe His Pro Thr Leu Ile Pro Ser Pro Arg Gly Arg Val
                                                 125
                            120
        115
Leu Pro Arg Asp Lys Cys Gly Ala His Arg His Ala Ala Trp Ser Leu
                        135
Ala Gln Ala Ala Cys Ala Asp Ser
                    150
145
<210> 2165
<211> 962
<212> DNA
<213> Homo sapiens
<400> 2165
nettteteat egacagegae geacaacegg egacateace ggtgaeggtt caaggtggea
gcccgagggc ccgccgtgaa cttattgtgt cgtcttatgg aagaaaagtc actcggaagt
accgtaaatc accccagcgc ctcatccccc gaatctgttc gccatctgct gtcgcccctg
cgcttaaggc atcaccccac tagactgacc gaagtctcgc cgagggaggc tagggaggct
taggtggcca ggaatgacat cgggacgacg tctacgcgtc gaataggcag cggacgtacg
tegagtaceg geegtaeggt ggtgtettet gaeegeacae geagagetat egetaaaaga
360
ttgatggccc gcacctcagc tatgacgacg gccactctag aggaaatggg tcgtcgacac
420
tectggttee gtgatetgte ageegaagaa agategtgga tetegategt ggetegetea
ggtattgacg gcttcgtcca gtggtttgct gacgatgacg ccgagcccta ctcccccacc
 540
gacgtetteg acgtggegee eeggteeatg accegeaaga teteettgea eeagacagte
 600
gagetegtee geaceaegat tgaegtegtt gaggeacaaa ttgagaeega aatgeeaege
 660
ggtgatcgcc aagtgctgcg cactgccatc gttcactact cccgcgaggt ggccttcgcc
 720
gccgccgagg tttacgcgcg agccgccgaa cgtcgcggta cctgggatga acgtctggaa
 teeetegteg ttgatgeegt egtgegagee gaegeegatg aacageteat etegegaget
 tetacteteg getggegeee gggcateaac etetgegteg ttgtegggeg ggeeeegaeg
 accgagcatg aactccacgt gctgcgacgt gatggagaac gcatgcagat gacggtgcta
 960
 gc
 962
```

<210> 2166

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<211> 239
<212> PRT
<213> Homo sapiens
<400> 2166
Val Ala Arg Asn Asp Ile Gly Thr Thr Ser Thr Arg Arg Ile Gly Ser
                                    10
Gly Arg Thr Ser Ser Thr Gly Arg Thr Val Val Ser Ser Asp Arg Thr
                                25
           20
Arg Arg Ala Ile Ala Lys Arg Leu Met Ala Arg Thr Ser Ala Met Thr
                                                45
                            40
Thr Ala Thr Leu Glu Glu Met Gly Arg Arg His Ser Trp Phe Arg Asp
                        55
Leu Ser Ala Glu Glu Arg Ser Trp Ile Ser Ile Val Ala Arg Ser Gly
                                        75
Ile Asp Gly Phe Val Gln Trp Phe Ala Asp Asp Asp Ala Glu Pro Tyr
                                    90
                85
Ser Pro Thr Asp Val Phe Asp Val Ala Pro Arg Ser Met Thr Arg Lys
                                105
            100
Ile Ser Leu His Gln Thr Val Glu Leu Val Arg Thr Thr Ile Asp Val
                            120
        115
Val Glu Ala Gln Ile Glu Thr Glu Met Pro Arg Gly Asp Arg Gln Val
                                            140
                        135
Leu Arg Thr Ala Ile Val His Tyr Ser Arg Glu Val Ala Phe Ala Ala
                                        155
                    150
Ala Glu Val Tyr Ala Arg Ala Ala Glu Arg Arg Gly Thr Trp Asp Glu
                                    170
                165
Arg Leu Glu Ser Leu Val Val Asp Ala Val Val Arg Ala Asp Ala Asp
                                185
Glu Gln Leu Ile Ser Arg Ala Ser Thr Leu Gly Trp Arg Pro Gly Ile
                            200
                                                205
Asn Leu Cys Val Val Val Gly Arg Ala Pro Thr Thr Glu His Glu Leu
                        215
His Val Leu Arg Arg Asp Gly Glu Arg Met Gln Met Thr Val Leu
225
<210> 2167
 <211> 325
 <212> DNA
<213> Homo sapiens
 <400> 2167
accggtgcag tttgtgaggg gttggtgacg cccgatcggg aggttcacgc cgtcacggcg
 catccacatt atcccgactg gaagatctcg ccaggttacg gacagtggtc gcgtagcgaa
 cagategaca gtgtgactgt gacgegagte agacaetteg tecegeggeg teceaeggeg
 attettegag eggtgtetga ggtgaegtte gggttgegte tetgegeegt eegttggega
 agcaccgcgg cgattgtggc tgtgtcgccg gccttgctct cgacgcggtc gcgcgggtcg
 tgcgctgatc tcccacagca taccc
```

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<210> 2168
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2168
Thr Gly Ala Val Cys Glu Gly Leu Val Thr Pro Asp Arg Glu Val His
                 5
Ala Val Thr Ala His Pro His Tyr Pro Asp Trp Lys Ile Ser Pro Gly
                                25
            20
Tyr Gly Gln Trp Ser Arg Ser Glu Gln Ile Asp Ser Val Thr Val Thr
Arg Val Arg His Phe Val Pro Arg Arg Pro Thr Ala Ile Leu Arg Ala
                        55
Val Ser Glu Val Thr Phe Gly Leu Arg Leu Cys Ala Val Arg Trp Arg
                                        75
                    70
Ser Thr Ala Ala Ile Val Ala Val Ser Pro Ala Leu Leu Ser Thr Arg
                                     90
Ser Arg Gly Ser Cys Ala Asp Leu Pro Gln His Thr
            100
<210> 2169
<211> 309
<212> DNA
<213> Homo sapiens
<400> 2169
gaggacgeet aegtgeteat cacceaggge aagatetegg egategeega egteetgeeg
atcetggaga aggtegteaa ggeeggeaag eegetgeteg teategeega ggaeategae
ggggaggccc tgtccaccct cgtcgtcaat aagatccgcg gtaccttcag ctcggtggca
gtcaaggcgc ccggcttcgg tgaccgccgc aaggcaatgc tgcaggacat cgccaccctc
accggtggtc aggtcgtcgc tcccgaggtt gggctcaagc tcgaccaggt gggcctcgag
300
gttcagggc
309
 <210> 2170
 <211> 103
 <212> PRT
 <213> Homo sapiens
 <400> 2170
 Glu Asp Ala Tyr Val Leu Ile Thr Gln Gly Lys Ile Ser Ala Ile Ala
                                     10
                  5
 Asp Val Leu Pro Ile Leu Glu Lys Val Val Lys Ala Gly Lys Pro Leu
 Leu Val Ile Ala Glu Asp Ile Asp Gly Glu Ala Leu Ser Thr Leu Val
                             40
```

Val Asn Lys Ile Arg Gly Thr Phe Ser Ser Val Ala Val Lys Ala Pro

```
60
                        55
Gly Phe Gly Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Thr Leu
                                        75
Thr Gly Gly Gln Val Val Ala Pro Glu Val Gly Leu Lys Leu Asp Gln
                                    90
                85
Val Gly Leu Glu Val Gln Gly
           100
<210> 2171
<211> 518
<212> DNA
<213> Homo sapiens
<400> 2171
cgcgtaatgt gtattaaggt ccttggtggc tcgcatcgcc gttatgcagc aatcggtgat
atcatcaaag tttcagtgaa ggaagcaatt cctcgcggaa aaattaaaaa aggtaatgtt
cattcagctg tggtagtgcg taccagaaaa ggtgtacgtc gtcccgatgg ttctgttatt
cgttttgatc gcaacgcagc ggttatcttg aatgcaaaca accagccagt cggtacacgt
atctttggcc ctgtaacccg tgagcttcga aatgaaaatt tcatgaagat tgtttcactg
gcgccagaag tactgtaagg aaccgaaaat ggcagcaaaa ataaaacgtg acgatgaagt
aattgttatt gccggtaaag ataaaggtaa aactgggaaa gtttctcaag ttttaactaa
420
cggtaaagta attattgaag gtgtaaatgt tcaaaagaaa caccaaaaac caaaccctca
agcgggcgtg gaaggcggaa tcattgaaca gaatgcat
518
<210> 2172
<211> 105
<212> PRT
<213> Homo sapiens
<400> 2172
Arg Val Met Cys Ile Lys Val Leu Gly Gly Ser His Arg Arg Tyr Ala
Ala Ile Gly Asp Ile Ile Lys Val Ser Val Lys Glu Ala Ile Pro Arg
                                25
Gly Lys Ile Lys Lys Gly Asn Val His Ser Ala Val Val Arg Thr
                            40
Arg Lys Gly Val Arg Arg Pro Asp Gly Ser Val Ile Arg Phe Asp Arg
Asn Ala Ala Val Ile Leu Asn Ala Asn Asn Gln Pro Val Gly Thr Arg
                                        75
                    70
Ile Phe Gly Pro Val Thr Arg Glu Leu Arg Asn Glu Asn Phe Met Lys
                                    90
                85
Ile Val Ser Leu Ala Pro Glu Val Leu
            100
                                105
```

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<210> 2173
<211> 475
<212> DNA
<213> Homo sapiens
<400> 2173
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egggegegtg certttgegg eggggttteg ageatteate tggtgeatge attttegeat
gcatttcttg tatcctcgtc atgcgtttct ccccatgcac acacattatc gcctttgcac
ccgcagggac gcatggaata cctcgtgaaa tggaagggat ggtcgcagaa gtacagcaca
tgggaaccgg aggaaaacat cctggatgct cgcttgctcg cagcctttga ggaaagggaa
agagagatgg agetetatgg ceceaaaaag egtggaceca ageceaaaac etteeteete
aaagcgcagg ccaaggcaaa ggccaaaact tacgagtttc gaagtgactc agccaggggc
atcoggator cotaccotgg cogotogoco caggacotgg cotocactto coggg
475
<210> 2174
<211> 158
<212> PRT
<213> Homo sapiens
<400> 2174
Xaa Gly Glu Glu Met Pro Val His Ala Leu Cys Ala Ala Leu Gly Ala
                                     10
Gly Val Met Gln Arg Ala Arg Ala Phe Cys Gly Gly Val Ser Ser Ile
                                 25
            20
His Leu Val His Ala Phe Ser His Ala Phe Leu Val Ser Ser Ser Cys
                             40
Val Ser Pro His Ala His Thr Leu Ser Pro Leu His Pro Gln Gly Arg
                                             60
                         55
Met Glu Tyr Leu Val Lys Trp Lys Gly Trp Ser Gln Lys Tyr Ser Thr
                                         75
                     70
Trp Glu Pro Glu Glu Asn Ile Leu Asp Ala Arg Leu Leu Ala Ala Phe
                                     90
                 85
Glu Glu Arg Glu Arg Glu Met Glu Leu Tyr Gly Pro Lys Lys Arg Gly
                                                     110
                                 105
            100
Pro Lys Pro Lys Thr Phe Leu Leu Lys Ala Gln Ala Lys Ala Lys Ala
                                                 125
                             120
Lys Thr Tyr Glu Phe Arg Ser Asp Ser Ala Arg Gly Ile Arg Ile Pro
                                             140
                         135
Tyr Pro Gly Arg Ser Pro Gln Asp Leu Ala Ser Thr Ser Arg
                                         155
                     150
145
<210> 2175
<211> 462
<212> DNA
<213> Homo sapiens
```

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<400> 2175
egegacacce tettiggigg gegeetteet teteegaatt egegaaccet eeagaetetg
gcccaggagg ttgtcgagcg tggagccgat atcggcattg ccactgatgg tgacgcagac
cgcctcggta tcattgatga ccaggggcat ttcttgcatc ccaaccagat cctcgtattg
ctgtacacct accttctgga ggacaaggga tggcaggtgc cctgcgtgcg taacctcgcg
acgacccacc tgcttgaccg tgtcgccgag gcccacgggc agacctgtta cgaggtaccg
gtcggattta agtgggtgtc gtccaagatg gccgagacca acgccgtcat cggtggtgag
360
teeteeggtg gtttgaeegt eeaggggeat attgeaggea aggatggtgt etatgetgge
accetgetgg tggaaatgat egecaagegg ggtaagaage tt
462
<210> 2176
<211> 154
<212> PRT
<213> Homo sapiens
<400> 2176
Arg Asp Thr Leu Phe Gly Gly Arg Leu Pro Ser Pro Asn Ser Arg Thr
Leu Gln Thr Leu Ala Gln Glu Val Val Glu Arg Gly Ala Asp Ile Gly
Ile Ala Thr Asp Gly Asp Ala Asp Arg Leu Gly Ile Ile Asp Asp Gln
                             40
Gly His Phe Leu His Pro Asn Gln Ile Leu Val Leu Leu Tyr Thr Tyr
                         55
Leu Leu Glu Asp Lys Gly Trp Gln Val Pro Cys Val Arg Asn Leu Ala
                                         75
                     70
Thr Thr His Leu Leu Asp Arg Val Ala Glu Ala His Gly Gln Thr Cys
                                     90
Tyr Glu Val Pro Val Gly Phe Lys Trp Val Ser Ser Lys Met Ala Glu
                                 105
 Thr Asn Ala Val Ile Gly Gly Glu Ser Ser Gly Gly Leu Thr Val Gln
                                                 125
                             120
 Gly His Ile Ala Gly Lys Asp Gly Val Tyr Ala Gly Thr Leu Leu Val
                         135
 Glu Met Ile Ala Lys Arg Gly Lys Lys Leu
                     150
 <210> 2177
 <211> 478
 <212> DNA
 <213> Homo sapiens
 <400> 2177
 ctcgagaatc atgacggcga cgacgtgact atctccaccc gtgtgcctcg tgacggcggg
```

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accttggact cgattgtcgg cgtgctggcc ggggcatcct ggtatcagcg ggagatccac
gacttttttg gtgtgaggtt tgtcggccct ggggcagatg atcgtgccct ccttgtccac
180
gatgcaccga aaccgcccct gcgcaaggaa gctgtgttgg cgcagcgagc tgacaccgtg
240
tggccgggtg cggctgacca ggctggctcg aagtccgcga gtcgacgtct gccggtcggc
300
gttcctgacc ctgagacgtg gcggcgtatc aaagacggcg aggatattcc ggatgccgag
gtcatcgcgg ccatgtctgg ccggcgcccg cgatcagctg cccgtcgaat ggcaagcacg
gegteaggea ggeaggeatg agacattega etateaacet tgaegtegae gegtgeae
478
<210> 2178
<211> 146
<212> PRT
<213> Homo sapiens
<400> 2178
Leu Glu Asn His Asp Gly Asp Asp Val Thr Ile Ser Thr Arg Val Pro
Arg Asp Gly Gly Thr Leu Asp Ser Ile Val Gly Val Leu Ala Gly Ala
                                25
Ser Trp Tyr Gln Arg Glu Ile His Asp Phe Phe Gly Val Arg Phe Val
                            40
Gly Pro Gly Ala Asp Asp Arg Ala Leu Leu Val His Asp Ala Pro Lys
                        55
                                            60
Pro Pro Leu Arg Lys Glu Ala Val Leu Ala Gln Arg Ala Asp Thr Val
                    70
                                        75
Trp Pro Gly Ala Ala Asp Gln Ala Gly Ser Lys Ser Ala Ser Arg Arg
                                                         95
                85
                                    90
Leu Pro Val Gly Val Pro Asp Pro Glu Thr Trp Arg Arg Ile Lys Asp
                                105
            100
Gly Glu Asp Ile Pro Asp Ala Glu Val Ile Ala Ala Met Ser Gly Arg
                            120
Arg Pro Arg Ser Ala Ala Arg Arg Met Ala Ser Thr Ala Ser Gly Arg
                        135
                                             140
    130
Gln Ala
145
<210> 2179
<211> 296
<212> DNA
<213> Homo sapiens
<400> 2179
gtgcacttcc gagtggacgt cgagcgtcgc attaacgggg ccggcgcggt gggcgcacac
aagacgtega tgetgeagga tetggaenge gaeegegega tggagatega eeegetegte
tecgtegtte aggagatggg acgeetggee aacgtgeega egeecaeget egatgtegtg
180
```

ctcccactga tcaagcaacg tgaattcatg acgaagccgg atgccgtggc ggccgcgcag

```
gaacgtctgg ctaaagcggc ataaaccagc cgccgaaacc agcggcataa cgcggn
       <210> 2180
       <211> 87
       <212> PRT
       <213> Homo sapiens
       <400> 2180
 . 1
       Val His Phe Arg Val Asp Val Glu Arg Arg Ile Asn Gly Ala Gly Ala
                                            10
        1
       Val Gly Ala His Lys Thr Ser Met Leu Gln Asp Leu Asp Xaa Asp Arg
                                        25
                   20
       Ala Met Glu Ile Asp Pro Leu Val Ser Val Val Gln Glu Met Gly Arg
                                    40
       Leu Ala Asn Val Pro Thr Pro Thr Leu Asp Val Val Leu Pro Leu Ile
                                                    60
                                55
       Lys Gln Arg Glu Phe Met Thr Lys Pro Asp Ala Val Ala Ala Ala Gln
                                                75
                            70
       65
       Glu Arg Leu Ala Lys Ala Ala
                        85
        <210> 2181
        <211> 387
        <212> DNA
        <213> Homo sapiens
        <400> 2181
       ngegegeegg gatggateat agtetggete gatgcateae gtgegegeat gegegegetg
÷.
       tegatteceg aeggeatgat egeggeacte gaeegtaceg geaaggegea aaegeacete
1
        acgctggcat cgccggaagc gggtgtcgtc agcgaactga acgtgcgcga cggtgcgatg
        gregegeegg ggeagaeget egegaagatt tegggeetet egaagetetg getgategte
ń.
        gagattccgg aagcgctcgc gctcgatgcg cgtccgggca tgaccgtcga cgcgacgttc
        tegggegate egacgeagea tttcaceggg egtateegeg agateetgee gggeateace
        accagtagec geaegettea ggegege
        387
        <210> 2182
        <211> 129
1:
        <212> PRT
        <213> Homo sapiens
2 6
        <400> 2182
        Xaa Ala Pro Gly Trp Ile Ile Val Trp Leu Asp Ala Ser Arg Ala Arg
                                             10
        Met Arg Ala Leu Ser Ile Pro Asp Gly Met Ile Ala Ala Leu Asp Arg
```

```
25
Thr Gly Lys Ala Gln Thr His Leu Thr Leu Ala Ser Pro Glu Ala Gly
                            40
Val Val Ser Glu Leu Asn Val Arg Asp Gly Ala Met Val Ala Pro Gly
                                            60
Gln Thr Leu Ala Lys Ile Ser Gly Leu Ser Lys Leu Trp Leu Ile Val
                                        75
                    70
Glu Ile Pro Glu Ala Leu Ala Leu Asp Ala Arg Pro Gly Met Thr Val
                                    90
Asp Ala Thr Phe Ser Gly Asp Pro Thr Gln His Phe Thr Gly Arg Ile
                                105
            100
Arg Glu Ile Leu Pro Gly Ile Thr Thr Ser Ser Arg Thr Leu Gln Ala
Arq
<210> 2183
<211> 310
<212> DNA
<213> Homo sapiens
<400> 2183
aagettgaaa aacaaatttg tgcacagtet gataacecaa aaatgaetga tggattgget
ctgcattttc caagcaggga ggggtcgggc atggagaatg aaacattctg agaaaagact
taaatgtgga aacttttggt tcaagagggt attctaggag atacaagaaa tatctcctgg
gggcatccaa agggaataac actgtaatct tgagtgatgt atggttccat tgcccgagga
atagggatga aaaccataaa ctcctttggg tgggtattaa cttatcantc aaagttacca
tanataatgg
310
<210> 2184
<211> 100
<212> PRT
<213> Homo sapiens
 <400> 2184
Met Val Thr Leu Xaa Asp Lys Leu Ile Pro Thr Gln Arg Ser Leu Trp
 Phe Ser Ser Leu Phe Leu Gly Gln Trp Asn His Thr Ser Leu Lys Ile
                                 25
 Thr Val Leu Phe Pro Leu Asp Ala Pro Arg Arg Tyr Phe Leu Tyr Leu
 Leu Glu Tyr Pro Leu Glu Pro Lys Val Ser Thr Phe Lys Ser Phe Leu
                                             60
                         55
 Arg Met Phe His Ser Pro Cys Pro Thr Pro Pro Cys Leu Glu Asn Ala
                                         75
                     70
 Glu Pro Ile His Gln Ser Phe Leu Gly Tyr Gln Thr Val His Lys Phe
                                     90
 Val Phe Gln Ala
```

..100

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<210> 2185
<211> 723
<212> DNA
<213> Homo sapiens
<400> 2185
ngaatatcca tgcagcagct cgtcgacaat tttgacggtg ccatccctga cgatcttgac
tetettgtga ecetgeeegg agteggtegt aagacegeea atgttgtttt aggtaatgee
tteggeatee eeggaateae eeeggacaee eaegteatge gggtateteg aegtetggge
tggaccgatg cgactacccc cgccaaggtg gaaaccgacc tggctgagct ttttgacccg
tergaatggg tgatgttgtg teacegeete atetggeacg ggeggeggeg etgteacteg
cggcgtcctg cctgcggggt atgcccggtt gccgagtggt gcccgtcctt cggggaaggc
ccaacggatc ccgaggaggc cgccacgtta gtccgggagc cgcgtcgatg agggggatga
acgttttcgg cgcggtgatg gccgccttga tgtttgctgg ctgcggggga gatgcgggca
tageteatea gegtgaaaat geeggaatae eggggtgete geatttgeeg teggggeega
ttgcgaaaag ttccgggccg gccacagagg gccggcccat gcccgatcac ggcttgcaat
gccttggtga ggggccgacg atctccatgt ctcgggcgac atcgaggggc gtgaccgtcg
tgacgatctg ggcgtcgtgg tgtcgaccat gtcgtagtga ggctccgctc attgcgaacg
720 aa
cgť
723 ca
<210> 2186
<211> 136
<212> PRT
 <2135 Homo sapiens
 <400> 2186
Xaa Ile Ser Met Gln Gln Leu Val Asp Asn Phe Asp Gly Ala Ile Pro
                                     10
Asp Asp Leu Asp Ser Leu Val Thr Leu Pro Gly Val Gly Arg Lys Thr
                                 25
Ala Asn Val Val Leu Gly Asn Ala Phe Gly Ile Pro Gly Ile Thr Pro
                             40
 Asp Thr His Val Met Arg Val Ser Arg Arg Leu Gly Trp Thr Asp Ala
                         55
 Thr Thr Pro Ala Lys Val Glu Thr Asp Leu Ala Glu Leu Phe Asp Pro
```

90

Ser Glu Trp Val Met Leu Cys His Arg Leu Ile Trp His Gly Arg Arg

Arg Cys His Ser Arg Arg Pro Ala Cys Gly Val Cys Pro Val Ala Glu

```
100
                               105
Trp Cys Pro Ser Phe Gly Glu Gly Pro Thr Asp Pro Glu Glu Ala Ala
                                               125
                           120
       115
Thr Leu Val Arg Glu Pro Arg Arg
                       135
<210> 2187
<211> 342
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<213> Homo sapiens
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cgcatcgatc cacgagggct atcggcgcga aagaagttgc cggggcaaaa tcccggcgag
gaaagcccga tggagtggaa gacgctgctc aacgacaccc gcttcggagg ggtcgccagc
ctcgatggga cgcgcggacg gtcggagttc cagaaggacc acgaccggat catcttctcc
gaageettee geaagetggg cegeaagace caggtgeace eg
342
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<211> 51
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Ser Leu Asp Gly Thr Arg Gly Arg Ser Glu Phe Gln Lys Asp His Asp
                                25
            20
Arg Ile Ile Phe Ser Glu Ala Phe Arg Lys Leu Gly Arg Lys Thr Gln
                            40
        35
Val His Pro
    50
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<211> 1412
<212> DNA
<213> Homo sapiens
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cgttcttcca cgcgatgcta gatgccgggg tcaacctgcc gccatcgtgc tttgaggcct
ggttcctctc ggacgctcac gacgacgaag ctttcgaggt tttccgcgcc gccctgccga
gggctgccca ggcggctgcc caggtgatca gtgcctgaca ccgggctgac ttcgcaggtc
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ategaggeaa tetgtgeetg gttcgaegee aaeggaegeg atetgeegtg gegeegaeee ggcacctccg cgtggggcgt gcttgttagc gaggtcatga gccaacagac cccgatgtcc 360 cgggtgatcg ggccgtggca cgagtggatg aaccgctggc ccacccctga tgatttggcg gaggaggact ctggggaagc ggttgccgcg tgggggcgcc tgggttaccc gcgtcgggcc 480 ttacgcctgc attcctgtgc cgtcacgatc gccaccgagc acgacggggg tgtgcccaac agtgacgacg agetegtege ectecegggt attggegact acaeegegag egeagtegte tettttgegt ttggeggeeg egecacagtg ettgacacea atgtaegteg eetcateget agagcagagt ctgggatcgc aaactgtcca acctcggtga cgagggctga gcgggtagtc geegaegegt tggtteeega egaagaegte egageggeea agtgggeggt ggegtegatg gaattggggg cactggtatg cacggcgcgg tetecgcagt gtgaggtetg eecgateegg gatggctgca ggtgggtgat cgacggtagg ccggacaatg ccccggcccg tcgaggacag ccatggaagg gcacggatcg ccagtgccgc ggcgtgatta tggacgtggt gcgcaacagc ceteaegggg tgaaggteca gatggetett teegeetgge eegagetega teaggeatea 1020 aggtgcctgg aatcettact cgatgacggt ttagtgcacc gacgaggtaa ccttattagc 1080 ctgtgacctg agaaattett ggccccgacc acccaaacag accgagteca gcagtgatgc 1140 cgctgggtta tccttagagg cggtcctcaa attggatcag ccaaaccacg tcaccgatca 1200 agacaccatg agcacaacac ccaaacagcc gcgcacggcg acagctgccc gacgccgaca cattgtcgac catctgcgtt ctttggggca ctcggagtcc atcggagatc tttaccaact 1320 gttcggtgtc tctacatcga cgattcgccg cgatgtcgat gccctctcgg atgaatccaa 1380 gatctggaag atttccgggg gagacgtcat ga 1412 <210> 2190 <211> 292 <212> PRT <213> Homo sapiens <400> 2190 Ser Val Pro Asp Thr Gly Leu Thr Ser Gln Val Ile Glu Ala Ile Cys Ala Trp Phe Asp Ala Asn Gly Arg Asp Leu Pro Trp Arg Arg Pro Gly Thr Ser Ala Trp Gly Val Leu Val Ser Glu Val Met Ser Gln Gln Thr Pro Met Ser Arg Val Ile Gly Pro Trp His Glu Trp Met Asn Arg Trp

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Pro Thr Pro Asp Asp Leu Ala Glu Glu Asp Ser Gly Glu Ala Val Ala
                                        75
                    70
Ala Trp Gly Arg Leu Gly Tyr Pro Arg Arg Ala Leu Arg Leu His Ser
                                    90
                85
Cys Ala Val Thr Ile Ala Thr Glu His Asp Gly Gly Val Pro Asn Ser
                                105
Asp Asp Glu Leu Val Ala Leu Pro Gly Ile Gly Asp Tyr Thr Ala Ser
                            120
Ala Val Val Ser Phe Ala Phe Gly Gly Arg Ala Thr Val Leu Asp Thr
                        135
Asn Val Arg Arg Leu Ile Ala Arg Ala Glu Ser Gly Ile Ala Asn Cys
                                        155
                    150
Pro Thr Ser Val Thr Arg Ala Glu Arg Val Val Ala Asp Ala Leu Val
                                     170
                165
Pro Asp Glu Asp Val Arg Ala Ala Lys Trp Ala Val Ala Ser Met Glu
                                185
            180
Leu Gly Ala Leu Val Cys Thr Ala Arg Ser Pro Gln Cys Glu Val Cys
                             200
Pro Ile Arg Asp Gly Cys Arg Trp Val Ile Asp Gly Arg Pro Asp Asn
                                             220
                         215
Ala Pro Ala Arg Arg Gly Gln Pro Trp Lys Gly Thr Asp Arg Gln Cys
                     230
Arg Gly Val Ile Met Asp Val Val Arg Asn Ser Pro His Gly Val Lys
                                     250
                 245
Val Gln Met Ala Leu Ser Ala Trp Pro Glu Leu Asp Gln Ala Ser Arg
                                 265
Cys Leu Glu Ser Leu Leu Asp Asp Gly Leu Val His Arg Arg Gly Asn
                                                 285
                             280
         275
 Leu Ile Ser Leu
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 tacattgaat coogttcaat cotgaacggo gttcaggacg totccagtot oggaaggaco
 agagtattgc tgaatctagc cgacatgacc gaacgcggcc tgagggggga gtccattacc
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 geogeoggaa aagtgegteg ceaettttte gataaceggg ttegeeteaa etaeetggte
 aacctcaagt ccggcctgtg tcccgaagac tgctcctatt gctcgcagcg tctgggatcg
 cgtgccgaga tcacgaaata ctcctgggcc gatccgcaga aggtacacga cgccgtcgag
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gctgggattg ccggtggtgc ac
502
<210> 2192
<211> 104
<212> PRT
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Leu Asn Leu Ala Asp Met Thr Glu Arg Gly Leu Arg Gly Glu Ser Ile
Thr Arg Glu Glu Ala Leu Glu Ile Leu Arg Ser Ser Asp Asp Glu Leu
                                2.5
            20
Met Ser Ile Ile Ala Ala Ala Gly Lys Val Arg Arg His Phe Phe Asp
                            40
Asn Arg Val Arg Leu Asn Tyr Leu Val Asn Leu Lys Ser Gly Leu Cys
                        55
Pro Glu Asp Cys Ser Tyr Cys Ser Gln Arg Leu Gly Ser Arg Ala Glu
                                         75
                    70
Ile Thr Lys Tyr Ser Trp Ala Asp Pro Gln Lys Val His Asp Ala Val
                                     90
Glu Ala Gly Ile Ala Gly Gly Ala
            100
<210> 2193
<211> 321
<212> DNA
<213> Homo sapiens
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aacatactcc tcttgccaac tgggtattac tggaccttac tgggccttac tggacccaac
atactectet tgccaactgg ggatttaaaa attttaaaag eeeetttate teeeteeaca
agteatgtae tgecaacagg gacacactgt tttetttgga aaccetgetg tgtgeecaga
cagaggtccc actgccctgg gacagctccc ttgcctanag gggaaggagg gtgtgtgtgc
 tgtgtgtgtt taggttgggg a
 321
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 <211> 106
 <212> PRT
 <213> Homo sapiens
 <400> 2194
 Met Gly Asn Ala Glu His Gly Gln Ser His Arg Leu Ser Ser Leu Ala
                                     10
 Phe Trp Thr Gln His Thr Pro Leu Ala Asn Trp Val Leu Leu Asp Leu
 Thr Gly Pro Tyr Trp Thr Gln His Thr Pro Lèu Ala Asn Trp Gly Phe
```

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40
Lys Asn Phe Lys Ser Pro Phe Ile Ser Leu His Lys Ser Cys Thr Ala
Asn Arg Asp Thr Leu Phe Ser Leu Glu Thr Leu Leu Cys Ala Gln Thr
                                        75
                    70
Glu Val Pro Leu Pro Trp Asp Ser Ser Leu Ala Xaa Arg Gly Arg Arg
Val Cys Val Leu Cys Val Phe Arg Leu Gly
<210> 2195
<211> 504
<212> DNA
<213> Homo sapiens
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gacggtgtgg cacaccccaa ctttggcaat atcgtccacg acctggtgct gttgcacagc
ctgggtgtgc gtctggtact ggtccacggt tcgcgcccgc agatcgacag ccgccttgag
gcacgaggcc tggtgccgta ttaccacaag ggcatgcgtg tcaccgatgc atcaacgctc
gaatgegtga tegatgetgt egggeaactg egeattgega ttgaagegeg ettgtegatg
gacatggcgt cttcgccaat gcagggttcg cgtctgcgcg tagccagcgg caacctggtc
actgcgcggc cgatcggcgt gctcgacggt gtggattttc accataccgg cgaagtgcgc
cgggtggacc gcaagggcat caaccgcctg ctcgatgagc gctcgattgt gctgctgtcg
cccttgggtt actcgcccac cggt
504
<210> 2196
<211> 168
<212> PRT
<213> Homo sapiens
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Xaa Ala Ser Pro Tyr Ile Asn Ala His Arg Asp Cys Thr Phe Val Val
Met Leu Pro Gly Asp Gly Val Ala His Pro Asn Phe Gly Asn Ile Val
            20
His Asp Leu Val Leu Leu His Ser Leu Gly Val Arg Leu Val Leu Val
His Gly Ser Arg Pro Gln Ile Asp Ser Arg Leu Glu Ala Arg Gly Leu
Val Pro Tyr Tyr His Lys Gly Met Arg Val Thr Asp Ala Ser Thr Leu
Glu Cys Val Ile Asp Ala Val Gly Gln Leu Arg Ile Ala Ile Glu Ala
                                    90
Arg Leu Ser Met Asp Met Ala Ser Ser Pro Mèt Gln Gly Ser Arg Leu
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105
            100
Arg Val Ala Ser Gly Asn Leu Val Thr Ala Arg Pro Ile Gly Val Leu
                            120
Asp Gly Val Asp Phe His His Thr Gly Glu Val Arg Arg Val Asp Arg
                                            140
                        135
Lys Gly Ile Asn Arg Leu Leu Asp Glu Arg Ser Ile Val Leu Leu Ser
                    150
                                        155
Pro Leu Gly Tyr Ser Pro Thr Gly
                165
<210> 2197
<211> 351
<212> DNA
<213> Homo sapiens
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ttatggggcc ctgcgctcga cgagattgcc gcgggaaaac gtgccggagg ggctgaacag
ttagattccg cagtgcagca catccacggt gctactcacg ataaactgtc cggtgctgtt
ccgaaacgct acgatggtcg ggatgtcttg gcaggcgagg acccgaatgc accgttgctg
cttgtgccta gcccggctgg tgcagtgttt agtcaaaata aggcacaagc ctggtccaat
gaagaccaca ttgtttttgc ctgtgggcgc tatgaaggta ttgatcaacg c
351
<210> 2198
<211> 117
<212> PRT
<213> Homo sapiens
<400> 2198
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Met Lys Pro Glu Leu Trp Gly Pro Ala Leu Asp Glu Ile Ala Ala Gly
Lys Arg Ala Gly Gly Ala Glu Gln Leu Asp Ser Ala Val Gln His Ile
                             40
His Gly Ala Thr His Asp Lys Leu Ser Gly Ala Val Pro Lys Arg Tyr
                                             60
                        55
Asp Gly Arg Asp Val Leu Ala Gly Glu Asp Pro Asn Ala Pro Leu Leu
Leu Val Pro Ser Pro Ala Gly Ala Val Phe Ser Gln Asn Lys Ala Gln
                                    90
Ala Trp Ser Asn Glu Asp His Ile Val Phe Ala Cys Gly Arg Tyr Glu
                                                     110
            100
                                 105
Gly Ile Asp Gln Arg
        115
<210> 2199
<211> 457
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<213> Homo sapiens
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ggcagaagcc cccgcccca ccctccgagc tccgttcggg cagagcgcct gcctgcctgc
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atccctttct gcgacgccaa ggaagaaatc cgtgccgggc tcgaaagctc tgagggcggc
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457
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 <213> Homo sapiens
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 Arg Arg Arg Pro Pro Arg Ser Ala Ser Leu Gly His Ala Lys Thr Leu
 Gly Lys Ser Ala Gly Ala Arg Glu Lys Gly Trp Lys Glu Gly Thr Gly
                                 25
             20
 Arg Ala Glu Asn Ser Pro Leu Lys Gly Arg Ser Pro Arg Pro His Pro
 Pro Ser Ser Val Arg Ala Glu Arg Leu Pro Ala Cys Arg Cys Trp Gly
                         55
 Arg Pro Pro Arg Pro Ala Met Pro Gly Pro Ala Thr Asp Ala Gly Lys
 Ile Pro Phe Cys Asp Ala Lys Glu Glu Ile Arg Ala Gly Leu Glu Ser
                                     90
 Ser Glu Gly Gly Gly Pro Glu Arg Pro Gly Ala Arg Gly Gln Arg
                                 105
             100
 Gln Asn Ile Val Trp Arg Asn Val Val Leu Met Ser Leu Leu His Leu
                                                 125
                              120
 Gly Ala Val Tyr Ser Leu Val Leu Ile Pro Lys Ala Lys Pro Leu Thr
                                              140
                          135
  Leu Leu Trp Gly Lys Ser Arg Arg
  145
  <210> 2201
  <211> 336
  <212> DNA
  <213> Homo sapiens
  <400> 2201
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agtactgcga tggacagcta tgtcgtggat ggtggtcgca aattacatgt ttgtggtaac
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aaccctgatt gcgatggtta tgaagtcgaa gaaggcgaat tcaagatcaa gggttatgat
120
ggtccgacta tcccatgcga taaatgtgat ggtgagatgc agcttaaaac gggtcgtttt
ggtccatatt tcgcatgtac tagctgtgac aatactcgta aggtactcaa gagtggtcaa
cctgctccgc cacgtgtaga cccaatcaaa atggagcatc tacgttcaac gaagcatgat
gatttcttcg tcttacgtga gggcgctgct ggttta
336
<210> 2202
<211> 112
<212> PRT
<213> Homo sapiens
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Ser Thr Ala Met Asp Ser Tyr Val Val Asp Gly Gly Arg Lys Leu His
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1
Val Cys Gly Asn Asn Pro Asp Cys Asp Gly Tyr Glu Val Glu Gly
                                25
Glu Phe Lys Ile Lys Gly Tyr Asp Gly Pro Thr Ile Pro Cys Asp Lys
Cys Asp Gly Glu Met Gln Leu Lys Thr Gly Arg Phe Gly Pro Tyr Phe
                        55
Ala Cys Thr Ser Cys Asp Asn Thr Arg Lys Val Leu Lys Ser Gly Gln
                                                             80
                    70
                                        75
Pro Ala Pro Pro Arg Val Asp Pro Ile Lys Met Glu His Leu Arg Ser
Thr Lys His Asp Asp Phe Phe Val Leu Arg Glu Gly Ala Ala Gly Leu
                                105
            100
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<211> 273
<212> DNA
<213> Homo sapiens
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gtgatggaaa actcaacaga ctggttcaga tcttggcccg gagcccagag gcaccgggga
120
cocccaggge tgtttctccc tgqccacacc agtaccccac ttccaaatgc cctgtaggtg
accaccagge cacacaggee egtetgaggg gecacagget gtgcaccatg ggacgcagge
240
ctgtccctgc ctccctccga tgtcctgatg gtg
<210> 2204
<211> 88
<212> PRT
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<213> Homo sapiens <400> 2204 Met Gln Ser Gln Pro Gly Trp Glu Ala Val Gln Thr Ala Pro Asp Leu 10 Gly Arg Asp Gly Lys Leu Asn Arg Leu Val Gln Ile Leu Ala Arg Ser 25 20 Pro Glu Ala Pro Gly Thr Pro Arg Ala Val Ser Pro Trp Pro His Gln Tyr Pro Thr Ser Lys Cys Pro Val Gly Asp His Gln Ala Thr Gln Ala Arg Leu Arg Gly His Arg Leu Cys Thr Met Gly Arg Arg Pro Val Pro 75 70 Ala Ser Leu Arg Cys Pro Asp Gly 85 <210> 2205 <211> 387 <212> DNA <213> Homo sapiens <400> 2205 gnnnnnggng nnnnactggt gtgcatggtt aaaatcctgc aagctactgg gttgccacag catctgtccc actttgtgtt ctgcaaatac agcttctggg atcaacagga gccggtgatt gtcgctcctg aagtggacac ctcctcctct tccgtcagca aggagccgca ctgcatggtt 180 gtctttgatc attgcaatga gttttctgtt aacatcaccg aagactttat cgagcatctt 240 teegaaggag cattggcaat tgaagtatat ggacataaaa taaacgatee eeggaaaaae cccgccctgt gggatttggg aatcatccaa gcaaagacac gtagtcttcg ggacagatgg agtgaagtgc ccaggaaatt ggaattc 387 <210> 2206 <211> 129 <212> PRT <213> Homo sapiens <400> 2206 Xaa Xaa Gly Xaa Xaa Leu Val Cys Met Val Lys Ile Leu Gln Ala Thr 10 Gly Leu Pro Gln His Leu Ser His Phe Val Phe Cys Lys Tyr Ser Phe 25 Trp Asp Gln Glu Pro Val Ile Val Ala Pro Glu Val Asp Thr Ser 40 Ser Ser Ser Val Ser Lys Glu Pro His Cys Met Val Val Phe Asp His 60 55 Cys Asn Glu Phe Ser Val Asn Ile Thr Glu Asp Phe Ile Glu His Leu Ser Glu Gly Ala Leu Ala Ile Glu Val Tyr Gly His Lys Ile Asn Asp

```
85
                                     90
Pro Arg Lys Asn Pro Ala Leu Trp Asp Leu Gly Ile Ile Gln Ala Lys
                                105
Thr Arg Ser Leu Arg Asp Arg Trp Ser Glu Val Pro Arg Lys Leu Glu
                            120
                                                 125
Phe
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<213> Homo sapiens
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120
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ataqatttca cccqqttacc qtctccaacc cccgaaaaca aggacttgtt ttttgtcaca
aggtectecg gggtecagee etcacetgee egeagetega gttactegga agecaacgag
420
cctgatcttc agatggccaa cggtggcaag agcctctcca tggtggacct ccaggacgcc
cgcacgctgg atggggaggc aggctccccg gcgggccccg acgtcctccc cacagatggg
caggoogoty cagotoagot ggtggooggg tggcoggood gggcaaccoo agtgaaccty
gcagggctgg ccacggtgcg gcgggcaggc cagacaccaa ccacaccagg cacctccgag
660
ggcgcgc
667
<210> 2208
<211> 222
<212> PRT
<213> Homo sapiens
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Ile Ser Asn Pro Glu Thr Leu Ser Asn Thr Ala Gly Phe Glu Gly Tyr
Ile Asp Leu Gly Arg Glu Leu Ser Ser Leu His Ser Leu Leu Trp Glu
Ala Val Ser Gln Leu Glu Gln Ser Ile Val Ser Lys Leu Gly Pro Leu
Pro Arg Ile Leu Arg Asp Val His Thr Ala Leu Ser Thr Pro Gly Ser
    50
Gly Gln Leu Pro Gly Thr Asn Asp Leu Ala Ser Thr Pro Gly Ser Gly
```

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75
                    70
Ser Ser Ser Ile Ser Ala Gly Leu Gln Lys Met Val Ile Glu Asn Asp
                                    90
                85
Leu Ser Gly Leu Ile Asp Phe Thr Arg Leu Pro Ser Pro Thr Pro Glu
                                                    110
                               105
Asn Lys Asp Leu Phe Phe Val Thr Arg Ser Ser Gly Val Gln Pro Ser
                                                125
                            120
        115
Pro Ala Arg Ser Ser Ser Tyr Ser Glu Ala Asn Glu Pro Asp Leu Gln
                        135
Met Ala Asn Gly Gly Lys Ser Leu Ser Met Val Asp Leu Gln Asp Ala
                                        155
                    150
Arg Thr Leu Asp Gly Glu Ala Gly Ser Pro Ala Gly Pro Asp Val Leu
                                    170
                165
Pro Thr Asp Gly Gln Ala Ala Ala Gln Leu Val Ala Gly Trp Pro
                                185
            180
Ala Arg Ala Thr Pro Val Asn Leu Ala Gly Leu Ala Thr Val Arg Arg
                            200
Ala Gly Gln Thr Pro Thr Thr Pro Gly Thr Ser Glu Gly Ala
                        215
    210
<210> 2209
<211> 353
<212> DNA
<213> Homo sapiens
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 ccacagcaga agtgaccaag ctgtagcttc cttagatggc cccaagggtg ggaggcttca
 cacagcagag cetgggtetg gaggeacett ggggatgttt tteeceatta ggeecetgag
 ctctatggaa gcacttaact gcctgttccc cgcttattct gtgtttaaac caaggaaaca
 acatgcctgg ggtctgaaat cctggattca aatcctgact gtgttgtgtg ctt
 353
 <210> 2210
 <211> 94
 <212> PRT
 <213> Homo sapiens
 Met Arg Glu Ile Ala Leu Gly Gln Met Val Ser Ala Glu Gly Thr Pro
  <400> 2210
                                      10
                   5
 Asp His Ser Arg Ser Asp Gln Ala Val Ala Ser Leu Asp Gly Pro Lys
  Gly Gly Arg Leu His Thr Ala Glu Pro Gly Ser Gly Gly Thr Leu Gly
                              40
  Met Phe Pro Ile Arg Pro Leu Ser Ser Met Glu Ala Leu Asn Cys
                          55
  Leu Phe Pro Ala Tyr Ser Val Phe Lys Pro Arg Lys Gln His Ala Trp
```

```
70
                                         75
65
                                                             80
Gly Leu Lys Ser Trp Ile Gln Ile Leu Thr Val Leu Cys Ala
                85
<210> 2211
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<212> DNA
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aggaaggagg ggaaggggat ggatccatgt actttggggt tggagaaatg ggggacagca
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gagcccagct gcaagggcgg cctgccaggg acaaacccac caaaaggaaa gatgttgtag
aaccaaagag aggctccctg aaagaggcgt ctcccggggc ctccaagccc gggagcgccc
ggcggacagg gggcagtggc caagtctgtg cggaccctga ccgcctcaga gaacgagagc
atgcgcaaag tcatgcccat caccaagtcc agcagaggcg ccggctggag gcgaccagag
480
ctgtcatccc ggg
493
<210> 2212
<211> 126
<212> PRT
<213> Homo sapiens
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Met Gly Met Thr Leu Arg Met Leu Ser Phe Ser Glu Ala Val Arg Val
                                    10
Arg Thr Asp Leu Ala Thr Ala Pro Cys Pro Pro Gly Ala Pro Gly Leu
Gly Gly Pro Gly Arg Arg Leu Phe Gln Gly Ala Ser Leu Trp Phe Tyr
Asn Ile Phe Pro Phe Gly Gly Phe Val Pro Gly Arg Pro Pro Leu Gln
                        55
Leu Gly Ser Leu Ser Thr Glu Thr Gly Gln Glu Pro Pro Arg Gly Ala
                    70
                                        75
Val Phe Gly Leu Arg Arg Leu Ala Val Pro His Phe Ser Asn Pro Lys
                                    90
Val His Gly Ser Ile Pro Phe Pro Ser Phe Leu Pro Val Pro Val Ser
                                105
Gly Phe Gly Asn Arg Phe Pro Leu Cys Ser Pro Arg Val Gln
       115
                            120
                                                125
<210> 2213
<211> 327
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<212> DNA
<213> Homo sapiens
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geoggtgett egacacactg ggttatateg eceteaaage acaggtetae gaaggttetg
120
acggaaggcc cggccaatcc gatcgcggcc tcggcgctgc gcatcatccg ggcgcgcgtg
tegeagetet ggggcaegte getgeteege aacggaeggg eggaacagag tgtggtggag
ategeceggt tggtegaege gateaegtea egggaegagg aageegeeea gegtgeaetg
ctcgaccaca atcgcagcgc gttggaa
327
<210> 2214
<211> 95
<212> PRT
<213> Homo sapiens
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Met Arg Ser Pro Ser Ile Ala Gly Ala Ser Thr His Trp Val Ile Ser
                                     10
Pro Ser Lys His Arg Ser Thr Lys Val Leu Thr Glu Gly Pro Ala Asn
                                 25
             20
 Pro Ile Ala Ala Ser Ala Leu Arg Ile Ile Arg Ala Arg Val Ser Gln
 Leu Trp Gly Thr Ser Leu Leu Arg Asn Gly Arg Ala Glu Gln Ser Val
                                             60
                         55
 Val Glu Ile Ala Arg Leu Val Asp Ala Ile Thr Ser Arg Asp Glu Glu
                     70
 Ala Ala Gln Arg Ala Leu Leu Asp His Asn Arg Ser Ala Leu Glu
                                      90
                 85
 <210> 2215
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 <212> DNA
 <213> Homo sapiens
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Gly Gln Asn Lys Ile Thr Gln Tyr Thr Arg Tyr Leu Thr Leu Val Leu
                            40
Gly Leu Leu Gln Ala Thr Ala Phe Val Thr Leu Ala Thr Ser Gly Arg
Leu Phe Thr Xaa Ala Ala Xaa Pro Val Val Tyr Ser Thr Ser Val Phe
                    70
Glu Val Val Val Met Ile Leu Thr Met Thr Ala Gly Thr Thr Ile Val
                                    90
Met Trp Met Gly Glu Leu Ile Thr Asp Arg Gly Ile Gly Asn Gly Met
            100
                                105
Ser Ile Met Ile Phe Thr Gln Ile Ala Ala Arg Phe Pro Asp Ser Leu
                            120
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Trp Ser Ile Lys Val Ala Arg Asn Gly Ala Gly Gln Ala His Ala
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<212> DNA
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Leu Asn Gln Ala Asp Ser Met Asp His Ala Leu Glu Ala Thr Val Pro
Gly Arg Val Thr Thr Pro Asp Ala Gln Val Ile Gln Thr Cys Ala Val
Leu Arg Asp Leu Ala Arg Val Ala Val Ser Gln Leu Gly Arg Asn Asp
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Glu Asp Ser Arg Glu Pro Val Asp Ala Glu Arg Val Gln Ala Gln Ala
Xaa Met Arg Glu Val Phe Glu Thr Ala Glu Arg Met Val Gly Leu Ala
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            100
Ala Ala Asp Val Val Trp Val Ser Glu Ser Glu Lys Gly Tyr Arg Ser
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Ile His Val Ala Pro Leu Ser Val Gly Gly Leu Leu Arg Glu Asn Val
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Phe Ala Gln Ser
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Thr Asn Met Ala Trp Met Trp Leu Trp Phe Asp Glu Pro Gly Asn Arg
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Trp Glu Trp Ser Ile Leu Phe Pro Ala Gly Trp Leu Thr Ser Ala Leu
                            40
        35
Val Ser Gln Gly Phe Gly Gly Met Phe His Ser Val Gln Ile Ala Arg
                                             60
                        55
His Val Ser Ser Tyr His Gly Ile Met Val Ala Phe Ala Leu Val Gly
                                         75
                    70
Tyr Gly Trp Leu Ala Met His Asn Leu Arg His Pro Asp Glu Arg Tyr
                                     90
                85
Ser Ile Arg Ser Ala Leu Ile Ile Gly Ile Gly Ile Gln Phe Thr Trp
                                 105
            100
Glu Ala Val Leu Met Ile Ser Gly Ile Arg Pro Leu Thr Trp Arg Pro
                             120
Leu Val Ile Asp Ser Leu Ile Glu Thr Asn Leu Gly Ala Pro Phe Met
                                             140
                        135
Leu Leu Ile Val Lys Ala Trp Arg Ala Pro Pro Glu Gly Ile Pro Gly
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                    150
Ser Thr Ser Pro Arg Pro Thr Ala Arg Gly Thr Ala Arg Val Tyr Met
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Arg Asp Asp Leu Val Ser Arg Arg Leu Leu Gln Arg Pro
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Ile Leu Pro Pro Lys Glu Glu Gln Thr Ala Ile Ala Asn Val Leu Ser
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Asp Met Asp Thr Glu Leu Asp Ala Leu Gln Gln Arg Leu Ser Lys Thr
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Lys Thr Ile Lys Gln Gly Met Met Gln Glu Leu Leu Thr Gly Lys Thr
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Arg Leu Val
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<212> DNA
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gt
482
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Val Ile Leu Val Val Leu Asp Gly Leu Asn Tyr Glu Val Ala Arg His
Ala Met Gly His Leu Gln Ala Tyr Ile Ser Ala Gly Arg Ala Ala Leu
Tyr Lys Leu Asp Cys Glu Leu Pro Ala Leu Ser Arg Pro Leu Asp Lys
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Cys Ile Phe Thr Gly Val Pro Pro Ile Asp Ser Gly Ile Val His Asn
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Asn Val Ser Arg Leu Ser Asn Gln Arg Ser Ile Phe His Tyr Ala Thr
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Asp Ala Gly Leu Thr Thr Ala Ala Ala
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Ser Glu Thr Phe Ile Arg Gln Arg Pro Lys Pro Leu Lys Glu Gly Ile
                        55
Gly His Thr Gly Trp Val Val Ser Asp Glu Leu Gly Pro Val Gly Asn
                                        75
                    70
Glu Asp Tyr Cys Ala Val Ile Ala Arg Met Glu Asn Gly Val Met Cys
                                    90
Thr Leu Glu Ser Ser Arg Val Ser Val Gly Pro Arg Ala Glu Tyr Ile
                                105
            100
Val Glu Ile Tyr Gly Thr Asp Gly Ser Ile Arg Trp Asn Phe Glu Asp
                            120
Leu Asn His Leu Gln Val Cys Leu Gly Arg Asn Asn Arg Ala Leu Gln
                                            140
                        135
Gly Tyr Val Asn Cys Met Ala Gly Pro Asp Phe Pro Glu Phe Met Arg
                                        155
                    150
Phe Gln Pro Gly Ala Gly Thr Ser Met Gly Phe Asp Asp Met Lys Val
                                    170
Val Glu Ala Ala Lys Phe Val Arg Gly Val Leu Asp Gly Gln Gln Tyr
                                185
            180
Gly Pro Ser Val Ala Asp Gly Trp Ala Ser Ala Glu Val Asn Asp Ala
                            200
Ile Val Ala Ser Cys Gly Gly Pro Cys Leu Ala
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324
<210> 2228
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<213> Homo sapiens
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Leu Ser Asn Leu Gly Ser Ser Lys Val Leu Pro Gly Lys Arg Asp Phe
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Val Arg Thr Leu Arg Thr His Gln Ala Leu Trp Cys Lys Ser Pro Val
                            40
Lys Pro Gly Ile Pro Tyr Lys Gln Leu Thr Val Gly Val Pro Lys Glu
Ile Phe Gln Asn Glu Lys Arg Val Ala Leu Ser Pro Ala Gly Val Gln
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Ala Leu Val Lys Gln Gly Phe Asn Val Val Glu Ser Gly Ala Gly
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Pro Ala Cys Leu Ala Leu Gly Gly Cys His Pro Gln Ser Pro Leu Leu
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Gly Pro Ala Leu Gly Thr Arg His Arg Trp Ile Gln Cys Ile Leu Ser
Pro Leu Arg Ser Cys Ala Ala Ile Ser Ser Phe Ser Gly Tyr Arg Ala
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Arg Glu Ala Ala Ala Gln Gln Ala Ser Val Pro Pro Ser Cys
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His His Val Pro Gly Thr Glu Pro Tyr Leu Asp Leu Leu Gln Pro Ser
                         55
Gln Trp His Cys Glu Ala Ser Val Val Leu Gln Met Arg Lys Leu Arg
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Phe Val Ala Ile Thr Asp Lys Gln Met Thr Leu Asn Gly Ala Gly His
                                     90
Val Ile Cys His Arg Tyr Met His Arg Thr Met Gln Thr Ser Gln Ser
                                                     110
                                 105
Pro Leu Ser Gln Thr Arg Leu Thr Ile Arg Asp Met Gln Thr Leu Ala
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Gly Leu Gly Leu Phe Pro Ile Gly Asp Ser Leu Val Pro Pro Trp Pro
                         135
Leu Met Pro Thr Ala Val Trp Lys Ala Gly Ser Leu Leu Arg Arg Gln
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Gly Asp Ile Phe Ser His Gln Leu Ser Phe Phe Tyr Ser Phe Leu Asp
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Asn Val Asp Asp Phe Lys Ile Ile Tyr Ile Ala Pro Met Arg Ser Leu
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. 1 -	<b></b>		1060	) Dha	7 ~ ~	Dho	uic	106		Val	Ara	Pro			Leu
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Glu	T.A11	His	J Tle	Gln	Glv	Phe			Ser	His	Thr			Arg	Leu
GIU	109			· · · · ·	01,	109					110	0			
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Leu			Ser	Thr	Leu			Thr	Leu	Leu	Asn 118	υ GTÀ	val	Gry	Tyr
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118	5				119	U							_	_	
D1	Ser	0	C1	A1-	T 3 -	C1-	17-7	17-1	17-1	בוב	Ser	Ara	Ser	Leu	Cys

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 Gly Tyr Ser Val Pro Arg Leu His Pro Arg Gln Val Pro Gly Arg Gly
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 Glu Ala Gly Pro Gly Ala Gly Ala Ala Val Glu Gly Leu His Cys Ala
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Gln Leu Glu Pro Ile Val Gln Gln Val Leu Ala Glu Glu Pro Leu Ala
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Pro His Cys Pro Thr Pro Asp Gln Gly Asp Ala Leu Glu Glu Gly Leu
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Asp Leu Ser Ser Ser Leu Ser Ala Pro Asp His Phe Gln Gly Leu Ser
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Glu Arg Ser Ile Ser Gly Ser Lys Lys Pro Thr Asn Asp Ser Asn Pro
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Ser Ser Gly Gly Pro Gly Arg Pro Ile Ser Gly Ser Val Ser Ser Ala
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His Glu Leu Arg Arg Pro Val Ser Gly Leu Gly Pro Pro Gly Arg Ser
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Val Ser Gly Pro Gly Arg Ser Ile Ser Gly Pro Ile Pro Ala Gly Arg
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 Gly Glu Glu Pro Val Phe Met Val Thr Gly Arg Arg Glu Asp Val Ala
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 Thr Ala Arg Arg Glu Ile Ile Ser Ala Ala Glu His Phe Ser Met Ile
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Phe Glu Ile Thr Gly Ala Pro Gly Asn Val Glu Arg Ala Arg Glu Glu
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                    150
Ile Glu Thr His Ile Ala Val Arg Thr Gly Lys Ile Leu Glu Tyr Asn
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Asn Glu Asn Asp Phe Leu Ala Gly Ser Pro Asp Ala Ala Ile Asp Ser
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Arg Tyr Ser Asp Ala Trp Arg Val His Gln Pro Gly Cys Lys Pro Leu
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Ser Thr Phe Arg Gln Asn Ser Leu Gly Cys
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tecetaaata atgtggaetg gaacacagaa atecaagget ggeegeaegg gteetggetg
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 ggttetgeet ceteettgee caetetettt gegeeeteee tgtgetegee tgtettgttt
 360
 tacctcccat cctgggccct tgga
 <210> 2244
 <211> 108
 <212> PRT
 <213> Homo sapiens
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 Met Gly Gly Lys Thr Arg Gln Ala Ser Thr Gly Arg Ala Gln Arg Glu
                                      10
 Trp Ala Arg Arg Gln Asn Pro Ala Pro Leu Thr Cys Ala Gly Lys
                                  25
 His Val Pro Ser Ser Ser Pro Asp Ala Ile Pro Ala Arg Thr Arg
 Ala Ala Ser Leu Gly Phe Leu Cys Ser Ser Pro His Tyr Leu Gly Ile
 Tyr Phe Pro Ser Leu Leu Arg Asn Asp Asn Thr Val Leu Cys Thr Tyr
                                          75
                     70
 Leu Val Phe Leu Leu Phe Ala Ser Asp Met Gln Leu Asn Lys Ser Glu
```

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90
                                                         95
                85
Asp Ser Tyr Gln Glu Met Asn Pro Gln Ser Phe Ser
                                105
            100
<210> 2245
<211> 632
<212> DNA
<213> Homo sapiens
<400> 2245
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tegagagaag aggteggaeg egagaggete aactatggte acacettgge ecacgetatt
gaggcccaca agcatttcac gtggcgtcat ggcgaggctg acgcggtggg catggtgttt
geggeegaac tgtegeaceg gtacetggga etgteegatg aggtegttge gegeaceege
actatectgt etgagategg attgeetgtt acctgtgaeg agattaagtg ggeagatetg
cgcaagacga tgaacgtgga caagaaaacc agggtagacc cgcagaccgg gcgtcaagtg
ttgcggtttg tcggtattca caaacccggt caggtcgcca tgatcgtcga ccctgacgag
geogetttag eegagtgeta egaceggtgt teegeaeggt aaaaaegtte ggaaatgaae
atgtggctgc gggtcagtcg gcattcaggc ctccgtgacg ccgtcgaccc caagtgatgt
gacgattcgg gaaatatctt gttgggcact cttgagcctc gcctgattcc ccatacccga
cttaagttca gtatcgacgg catgaatccg ga
632
<210> 2246
<211> 153
<212> PRT
<213> Homo sapiens
<400> 2246
Thr Arg Ala Ile Thr Val Lys Ala Gly Val Val Ser Ala Asp Leu His
                                     10
Glu Arg Thr Ser Ser Arg Glu Glu Val Gly Arg Glu Arg Leu Asn Tyr
Gly His Thr Leu Ala His Ala Ile Glu Ala His Lys His Phe Thr Trp
                            40
Arg His Gly Glu Ala Asp Ala Val Gly Met Val Phe Ala Ala Glu Leu
Ser His Arg Tyr Leu Gly Leu Ser Asp Glu Val Val Ala Arg Thr Arg
                    70
                                        75
Thr Ile Leu Ser Glu Ile Gly Leu Pro Val Thr Cys Asp Glu Ile Lys
                85
Trp Ala Asp Leu Arg Lys Thr Met Asn Val Asp Lys Lys Thr Arg Val
                                105
Asp Pro Gln Thr Gly Arg Gln Val Leu Arg Phe Val Gly Ile His Lys
```

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120
Pro Gly Gln Val Ala Met Ile Val Asp Pro Asp Glu Ala Ala Leu Ala
                                            140
                        135
Glu Cys Tyr Asp Arg Cys Ser Ala Arg
                    150
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<211> 324
<212> DNA
<213> Homo sapiens
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gaggttgggc gtggggagtg ccgggtacag tcagagttgc caggacagtt tggagcagtg
120
cctcttaatc ttggccgcac agcacctggg agctttaaat agacccccac gccctgggcg
ccccaccgc tgacccaccc gatctcagct ctgcctttcc cgcctctctg ctgggttgca
taagccagcg attcccaacc ccggctgtac ctggaagcta ccccaggagc ttctggagaa
tgtgccgtgt gagccatccc cctg
<210> 2248
 <211> 105
 <212> PRT
 <213> Homo sapiens
 <400> 2248
 Met Ala His Thr Ala His Ser Pro Glu Ala Pro Gly Val Ala Ser Arg
                                     10
 Tyr Ser Arg Gly Trp Glu Ser Leu Ala Tyr Ala Thr Gln Gln Arg Gly
                                 25
 Gly Lys Gly Arg Ala Glu Ile Gly Trp Val Ser Gly Gly Gly Ala Gln
                              40
 Gly Val Gly Val Tyr Leu Lys Leu Pro Gly Ala Val Arg Pro Arg Leu
                         55
 Arg Gly Thr Ala Pro Asn Cys Pro Gly Asn Ser Asp Cys Thr Arg His
                     70
 Ser Pro Arg Pro Thr Ser Leu Leu Pro Leu Gly Arg Leu Ala Ser Ser
                 85
 Val Gly Glu Asn Pro Gly Gly Glu Arg
                                  105
             100
 <210> 2249
  <211> 394
  <212> DNA
  <213> Homo sapiens
  <400> 2249
  gaaaaccgga taacagggtg tatacaagcc tetgagttet gggagcaaca accagetcaa
  60
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cccgcaaqqq aaagtgagaa agcaattaag ttgggaaccg cggggttttc ccattcccac
ggtggaaacc gcggccagtg aattgaaatc cgcttcctta aggcgaaatg ggcccttaaa
aggcaaggtc aaccgcccgc cagtgtgatg gaatttgcaa gaattcggtt tagcaccctc
coggetttte teccgacoge gtgcagggtg ggctgcgctg ggcctgggag gaactgggag
ctgggggctc atgtcctgta taaaggggct gcaggggcgc tgtctccccc cagaagactg
gccacatggg gacaggcctc ctgggggcag atct
394
<210> 2250
<211> 104
<212> PRT
<213> Homo sapiens
<400> 2250
Met Ser Pro Gln Leu Pro Val Pro Pro Arg Pro Ser Ala Ala His Pro
Ala Arg Gly Arg Glu Lys Ser Arg Glu Gly Ala Lys Pro Asn Ser Cys
           20
                               25
Lys Phe His His Thr Gly Gly Arg Leu Thr Leu Pro Phe Lys Gly Pro
                           40
Phe Arg Leu Lys Glu Ala Asp Phe Asn Ser Leu Ala Ala Val Ser Thr
                       55
                                          60
Val Gly Met Gly Lys Pro Arg Gly Ser Gln Leu Asn Cys Phe Leu Thr
                                      75
Phe Pro Cys Gly Leu Ser Trp Leu Leu Pro Glu Leu Arg Gly Leu
Tyr Thr Pro Cys Tyr Pro Val Phe
           100
<210> 2251
<211> 654
<212> DNA
<213> Homo sapiens
<400> 2251
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gtggaatagt caggttaaat ttaatgtgac cgtttatcgc aatctgccga ccactcgcga
ttcaatcatg acttcgtgat aaaagattga gtgtgaggtt ataacgccga agcggtaaaa
agtttaatca tgtttcagac ttttatttct cgccataatt caaacttttt ttctgataag
300
ctggttctca cttctgttac tccagcttct tcqqcacctq ttttacaqac acctaaagct
acategicaa egitatatit tgatagittg aeggitaatg etggtaatgg tggttttett
420
```

```
cattgcattc agatggatac atctgtcaac gccgctaatc aggttgtttc tgttggtgct
gatattgctt ttgatgccga ccctaaattt tttgcctgtt tggttcgctt tgagtcttct
teggtteega ctacceteec gactgeetat gatgtttate etttggatgg tegecatgat
ggtggttatt ataccgtcaa ggactgtgtg actattgacg tccttcctcg tacg
654
<210> 2252
<211> 135
<212> PRT
<213> Homo sapiens
Met Phe Gln Thr Phe Ile Ser Arg His Asn Ser Asn Phe Phe Ser Asp
                 5
Lys Leu Val Leu Thr Ser Val Thr Pro Ala Ser Ser Ala Pro Val Leu
Gln Thr Pro Lys Ala Thr Ser Ser Thr Leu Tyr Phe Asp Ser Leu Thr
                             40
 Val Asn Ala Gly Asn Gly Gly Phe Leu His Cys Ile Gln Met Asp Thr
                                             60
                         55
 Ser Val Asn Ala Ala Asn Gln Val Val Ser Val Gly Ala Asp Ile Ala
 Phe Asp Ala Asp Pro Lys Phe Phe Ala Cys Leu Val Arg Phe Glu Ser
                                      90
 Ser Ser Val Pro Thr Thr Leu Pro Thr Ala Tyr Asp Val Tyr Pro Leu
                                  105
 Asp Gly Arg His Asp Gly Gly Tyr Tyr Thr Val Lys Asp Cys Val Thr
                              120
         115
 Ile Asp Val Leu Pro Arg Thr
                          135
     130
 <210> 2253
  <211> 327
  <212> DNA
  <213> Homo sapiens
  ggatcetget gggeetettt tacgtgatgt tgacceagee getggtgege attattegeg
  <400> 2253
  cactgagcac cagcaagcag gcccgcctgg attgcccacc gggtcacgaa aacgatgaaa
  teggegtatt ggteaacgte gecaaccage aattegacaa tatggaaace gaaategage
  agegeegeea egeegaggae egeeteaceg aatacetggg eeaactggaa gatategtet
  ccgcacgcac cctggagctc aaggccagca accaacgctt gagccaatcc aacgatgagc
  tggaagcggc aaagttgacc gccttgg
   327
   <210> 2254
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<211> 100
<212> PRT
<213> Homo sapiens
<400> 2254
Met Leu Thr Gln Pro Leu Val Arg Ile Ile Arg Ala Leu Ser Thr Ser
                                    10
Lys Gln Ala Arg Leu Asp Cys Pro Pro Gly His Glu Asn Asp Glu Ile
                                25
Gly Val Leu Val Asn Val Ala Asn Gln Gln Phe Asp Asn Met Glu Thr
Glu Ile Glu Gln Arg Arg His Ala Glu Asp Arg Leu Thr Glu Tyr Leu
Gly Gln Leu Glu Asp Ile Val Ser Ala Arg Thr Leu Glu Leu Lys Ala
                                        75
                    70
Ser Asn Gln Arg Leu Ser Gln Ser Asn Asp Glu Leu Glu Ala Ala Lys
                                    90
Leu Thr Ala Leu
            100
<210> 2255
<211> 357
<212> DNA
<213> Homo sapiens
<400> 2255
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aatatggctc atgcaacttc tggccaaagg ggtcacattg agcgtgctgc tatcaatgct
cctqtacaqq qcaqtqcaqc tqatqttqct atqtqtqcaa tqcttqagat agacaggaat
actogtotta aggagottgg ttggacgota ctottgcagg tgcatgatga agtgatactg
gaagggcctt cagagtctgc ggagtnggcc aagtccatag ttgttgagtg catgtctaag
cccttctatg gcaccaatat cctgagggtc gaccttgctg ttgatgccaa gtgtgca
357
<210> 2256
<211> 119
<212> PRT
<213> Homo sapiens
<400> 2256
Xaa Leu Ala His Glu Lys Cys Glu Val Tyr Thr Leu Leu Gly Arg Ser
                                    10
Arg Arg Phe Pro Asn Met Ala His Ala Thr Ser Gly Gln Arg Gly His
Ile Glu Arg Ala Ala Ile Asn Ala Pro Val Gln Gly Ser Ala Ala Asp
                            40
Val Ala Met Cys Ala Met Leu Glu Ile Asp Arg Asn Thr Arg Leu Lys
Glu Leu Gly Trp Thr Leu Leu Gln Val His Asp Glu Val Ile Leu
```

```
70
                                        75
65
Glu Gly Pro Ser Glu Ser Ala Glu Kaa Ala Lys Ser Ile Val Val Glu
Cys Met Ser Lys Pro Phe Tyr Gly Thr Asn Ile Leu Arg Val Asp Leu
                                                    110
                                105
            100
Ala Val Asp Ala Lys Cys Ala
        115
<210> 2257
<211> 626
<212> DNA
<213> Homo sapiens
<400> 2257
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gtatatctac atgaagaatt acagcaggac atgcaaaagt ttaagaatga ggtcaacaca
ttagaagaag agttcctggc tttgaagaaa gaaaatgttc aacttcataa agaggttgaa
gaagaaatgg agaagcacag aagtaatagc acagaattat caggaaccct aactgatggt
actactgttg gcaatgatga tgatggacta aatcagcaga ttcctaggaa ggaaaatgaa
gagcatgaca ggcctgcaga taaaacagct aatgaaaaga acaaggtcaa aaaccaaata
tatectgagg etgaetttge tgaetcaatg gagecatetg aaatageete agaggattgt
gaattgtctc actctgttta tgagaatttt atgttgctga ttgaacaact tagaatggag
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gtatacattg ctgagaactg acgcgt
626 .
<210> 2258
<211> 187
<212> PRT
<213> Homo sapiens
<400> 2258
Xaa Met Thr Lys Asn Met Asn Gln Asn Ser Asp Ser Gly Ser Thr Asn
Asn Tyr Lys Ser Leu Lys Pro Lys Leu Glu Asn Leu Ser Ser Leu Pro
            20
Pro Asp Ser Asp Arg Thr Ser Glu Val Tyr Leu His Glu Glu Leu Gln
                             40
Gln Asp Met Gln Lys Phe Lys Asn Glu Val Asn Thr Leu Glu Glu
Phe Leu Ala Leu Lys Lys Glu Asn Val Gln Leu His Lys Glu Val Glu
                                         75
Glu Glu Met Glu Lys His Arg Ser Asn Ser Thr Glu Leu Ser Gly Thr
```

90

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Leu Thr Asp Gly Thr Thr Val Gly Asn Asp Asp Gly Leu Asn Gln
                                105
            100
Gln Ile Pro Arg Lys Glu Asn Glu Glu His Asp Arg Pro Ala Asp Lys
                                                125
                            120
        115
Thr Ala Asn Glu Lys Asn Lys Val Lys Asn Gln Ile Tyr Pro Glu Ala
                        135
Asp Phe Ala Asp Ser Met Glu Pro Ser Glu Ile Ala Ser Glu Asp Cys
                                        155
                   150
Glu Leu Ser His Ser Val Tyr Glu Asn Phe Met Leu Leu Ile Glu Gln
                                    170
                165
Leu Arg Met Glu Tyr Lys Gly Arg Thr Thr Ala
                                185
<210> 2259
<211> 425
<212> DNA
<213> Homo sapiens
<400> 2259
acgcgtcaca atgataaagc cattatattc atcaagaggt aaatcattct tgaaattttc
taaaggtaaa cacttacgtg taacacgttc atcaaagaat tcaggaacca catattctgg
120
acggtcatct acgactgtaa cacgacagcc aataaacaat agcaaatcag taatagctcg
gctaacatga cctgcaccta atacgagaac tgacggatca ttttctacag gttgtacgaa
acactccatt tegectacea tgcatagaga atteagettt getttateta eagtaaatee
ttcaatagga gttccgtata gaaccettce atettcagca taaatagtet tatcccettg
acgaggaccg gatagaacgg taaccattac ggtagcttca gtaacctgta gacgattttt
catga
425
<210> 2260
<211> 141
<212> PRT
<213> Homo sapiens
<400> 2260
Met Lys Asn Arg Leu Gln Val Thr Glu Ala Thr Val Met Val Thr Val
Leu Ser Gly Pro Arg Gln Gly Asp Lys Thr Ile Tyr Ala Glu Asp Gly
Arg Val Leu Tyr Gly Thr Pro Ile Glu Gly Phe Thr Val Asp Lys Ala
                             40
Lys Leu Asn Ser Leu Cys Met Val Gly Glu Met Glu Cys Phe Val Gln
                        55
Pro Val Glu Asn Asp Pro Ser Val Leu Val Leu Gly Ala Gly His Val
                    70
Ser Arg Ala Ile Thr Asp Leu Leu Phe Ile Gly Cys Arg Val Thr
```

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90
                85
Val Val Asp Asp Arg Pro Glu Tyr Val Val Pro Glu Phe Phe Asp Glu
                                105
Arg Val Thr Arg Lys Cys Leu Pro Leu Glu Asn Phe Lys Asn Asp Leu
                            120
Pro Leu Asp Glu Tyr Asn Gly Phe Ile Ile Val Thr Arg
                        135
    130
<210> 2261
<211> 660
<212> DNA
<213> Homo sapiens
<400> 2261
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ttgagcccaa gcgcgaggtc gatgtgtccg gcgaccgcgc gcgttgcggt gggagcatag
tgtcggtgca cgctgaccga gaggtccgtg cggagagtac tcccgatgat atttgcgggc
agetegatge egtggeegee atgatggeee ttgtetatgg gtegaatgtg actatteeeg
acgatgccgg gaggctcttc gacaagcttc actgaacggt gttcaattgg tcccaacggc
300
tgcccatgtg ggcagccgct ctatctcgtc atgggaagga acccgatgtc gtcacgcaat
ggtttccagg ccaccgacct ggctcttatc gcggtctttg cagccctcat tgctgtgcta
geogteatee egeogatgtt catggtgggg geggteeett ttgeeettea gatggttgee
480
gtcatgctgg cgccgatggt gctgggaagt atccgtggcg gatgcgcggt aggcttgtat
atcettgtcg gcgcgctggg gctgcccgtc ttcagcggtg ggtctagcgg gattggcgtc
ctggtgggtc ccactggtgg gtatctatgg ggatggctga tcggcgcttt cgtggcgggt
 660
 <210> 2262
 <211> 139
 <212> PRT
 <213> Homo sapiens
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 Met Pro Gly Gly Ser Ser Thr Ser Phe Thr Glu Arg Cys Ser Ile Gly
  1
 Pro Asn Gly Cys Pro Cys Gly Gln Pro Leu Tyr Leu Val Met Gly Arg
             20
 Asn Pro Met Ser Ser Arg Asn Gly Phe Gln Ala Thr Asp Leu Ala Leu
                             40
 Ile Ala Val Phe Ala Ala Leu Ile Ala Val Leu Ala Val Ile Pro Pro
                                              60
                         55
 Met Phe Met Val Gly Ala Val Pro Phe Ala Leu Gln Met Val Ala Val
                     70
 Met Leu Ala Pro Met Val Leu Gly Ser Ile Arg Gly Gly Cys Ala Val
```

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85
                                    90
Gly Leu Tyr Ile Leu Val Gly Ala Leu Gly Leu Pro Val Phe Ser Gly
                               105
            100
Gly Ser Ser Gly Ile Gly Val Leu Val Gly Pro Thr Gly Gly Tyr Leu
       115
                            120
Trp Gly Trp Leu Ile Gly Ala Phe Val Ala Gly
   130
<210> 2263
<211> 491
<212> DNA
<213> Homo sapiens
<400> 2263
nacgcgttcc cggtcgaccg aggcaaaggc aaaagtaagc agggtgcccg tagtccccgt
teccaeegeg gtatggetgg gteaetgetg acagatggeg tecceetget gatettteeg
gagggcaccc ggtctcgcac cggcgcaatg ggcaccttca aacctggggc tgccgcattg
gctatttcac gtggggttcc ggttatcccg attgctttag taggagcatg ggcggctatg
ccgtccgagc aagccaggtt accaaaagga cgtccattgg tccacgtggc tattggacac
cctatggacc ctgttcccgg cgagatcgcc caccaattct ccgaacggat tcgtcgccag
gtcattgagt tgcacgacca aaccgcccgc gcctacggca tgccaaccct tgacgaatac
ggacgccacc gcgcgctaag ccaggcctcc gagagcggcg acaccgcatc caccaaccac
tcgacgtgca c
491
<210> 2264
<211> 163
<212> PRT
<213> Homo sapiens
<400> 2264
Xaa Ala Phe Pro Val Asp Arg Gly Lys Gly Lys Ser Lys Gln Gly Ala
                                    10
Arg Ser Pro Arg Ser His Arg Gly Met Ala Gly Ser Leu Leu Thr Asp
                                25
Gly Val Pro Leu Leu Ile Phe Pro Glu Gly Thr Arg Ser Arg Thr Gly
                            40
Ala Met Gly Thr Phe Lys Pro Gly Ala Ala Ala Leu Ala Ile Ser Arg
Gly Val Pro Val Ile Pro Ile Ala Leu Val Gly Ala Trp Ala Ala Met
                    70
Pro Ser Glu Gln Ala Arg Leu Pro Lys Gly Arg Pro Leu Val His Val
                                    90
                85
Ala Ile Gly His Pro Met Asp Pro Val Pro Gly Glu Ile Ala His Gln
                                105
Phe Ser Glu Arg Ile Arg Arg Gln Val Ile Glu Leu His Asp Gln Thr
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120
       115
Ala Arg Ala Tyr Gly Met Pro Thr Leu Asp Glu Tyr Gly Arg His Arg
                                            140
                        135
Ala Leu Ser Gln Ala Ser Glu Ser Gly Asp Thr Ala Ser Thr Asn His
                                        155
                   150
Ser Thr Cys
<210> 2265
<211> 328
<212> DNA
<213> Homo sapiens
<400> 2265
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gtcaacacgg cagacacatg ctggcagaaa ccctgctgga gttgcccctg agcattgatg
cataccaccc gagaggagga gagggtggtg ggagaaatca gatcagagtt caaaatgcac
cggaagggct cggaaatgta agactgcacc ttgcaggaac tgtcaatgcc actaccaata
teacteactt aegteaagea ettgagagea getgegaaca caattetetg aeteetaaee
tttagcacgt gactgggacc actggaca
328
<210> 2266
 <211> 100
 <212> PRT
 <213> Homo sapiens
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Met Gly Ile Gly Gln His Gly Trp Ile Tyr Cys Ile Thr Cys Leu Pro
                                     10
 Ser Gly Lys Ser Gln His Gly Arg His Met Leu Ala Glu Thr Leu Leu
 1
                                 25
             20
 Glu Leu Pro Leu Ser Ile Asp Ala Tyr His Pro Arg Gly Gly Glu Gly
                             40
 Gly Gly Arg Asn Gln Ile Arg Val Gln Asn Ala Pro Glu Gly Leu Gly
                                              60
 Asn Val Arg Leu His Leu Ala Gly Thr Val Asn Ala Thr Thr Asn Ile
                                          75
 Thr His Leu Arg Gln Ala Leu Glu Ser Ser Cys Glu His Asn Ser Leu
                                      90
                 85
 Thr Pro Asn Leu
             100
 <210> 2267
 <211> 370
 <212> DNA
 <213> Homo sapiens
 <400> 2267
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agatctatgc aggtagcgct ggtctccggg gggtaagttg tccactccct gtcagatggc
agaccatgga gggctaatgc aggctgggaa ggctaggcag agttcccaga aacaggtcac
cgagggagcc accactgaat tgcactctcg ctggggagtt aagccatatc cccctaagac
agcagtgacc ggagtggcca atctgtacag ggacaggctc aaggccacag caactcaggg
gacagagatg gtgaagcagg catgtcctaa agectecett ettaaccetg acettgaagg
300
acaggaaaca agtcatttac gtatgttgta ggcctagagc aagggattgc agagatgggc
gtcaacgcgt
370
<210> 2268
<211> 91
<212> PRT
<213> Homo sapiens
<400> 2268
Met Ala Asp His Gly Gly Leu Met Gln Ala Gly Lys Ala Arg Gln Ser
Ser Gln Lys Gln Val Thr Glu Gly Ala Thr Thr Glu Leu His Ser Arg
                                25
Trp Gly Val Lys Pro Tyr Pro Pro Lys Thr Ala Val Thr Gly Val Ala
Asn Leu Tyr Arg Asp Arg Leu Lys Ala Thr Ala Thr Gln Gly Thr Glu
                        55
Met Val Lys Gln Ala Cys Pro Lys Ala Ser Leu Leu Asn Pro Asp Leu
                                        75
                    70
Glu Gly Gln Glu Thr Ser His Leu Arg Met Leu
                85
<210> 2269
<211> 507
<212> DNA
<213> Homo sapiens
<400> 2269
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gacaaacgtc tgcttgacaa atacggagcc ccgaccgccg aggctatggt ggagtcggca
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caccacgacc cggtcgtcat gatccgtgcc tatgaacagc tcgccgccaa atgcgattat
ccccttcatt tgggcgttac tgaggctggt ccggccttcc aaggcaccat caagtcggcg
gtggccttcg ggcatctcct tgccgagggt atcggcgata ccatacgcgt ctccttgtcg
420
```

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gctgatccgg tcgaggaagt caaggtgggt atcaagatcc tggagtcgct caacctacgt
cctcgaggtc tagagatcgt ctcctgc
507
<210> 2270
<211> 169
<212> PRT
<213> Homo sapiens
<400> 2270
Leu Ser Asp Arg Val Asn Pro Gly Asn Ile Arg Lys Phe Asp Asp Gln
 1
Ile Glu Ser Ile Cys Lys Ala Ala Thr Glu His Gly Thr Ser Ile Arg
                                 25
Ile Gly Val Asn Ala Gly Ser Leu Asp Lys Arg Leu Leu Asp Lys Tyr
        35
Gly Ala Pro Thr Ala Glu Ala Met Val Glu Ser Ala Leu Trp Glu Ala
                         55
Ser Leu Phe Glu Gln Tyr Gly Phe Arg Asp Phe Lys Ile Ser Val Lys
                                         75
                    70
His His Asp Pro Val Val Met Ile Arg Ala Tyr Glu Gln Leu Ala Ala
                                     90
Lys Cys Asp Tyr Pro Leu His Leu Gly Val Thr Glu Ala Gly Pro Ala
                                                     110
                                 105
Phe Gln Gly Thr Ile Lys Ser Ala Val Ala Phe Gly His Leu Leu Ala
                                                 125
                             120
        115
Glu Gly Ile Gly Asp Thr Ile Arg Val Ser Leu Ser Ala Asp Pro Val
                         135
                                             140
Glu Glu Val Lys Val Gly Ile Lys Ile Leu Glu Ser Leu Asn Leu Arg
                                                              160
                                         155
                    150
Pro Arg Gly Leu Glu Ile Val Ser Cys
                 165
<210> 2271
<211> 573
<212> DNA
 <213> Homo sapiens
 <400> 2271
nnegecgace eggactteca ggagatgtta egtgegetgg tggaettega egaagacate
 ccgatggtcg acgaaagcct ggaacagttc gcccagttgc tcaaaacccg cacctcggaa
 gaaggcatgg cgccgttgac ctcggacgcg gtggcgcggt tggccactta cagcgcacgg
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 gaggcggact ttatccgcca cctggcgggc gacgagatga ctgatgccgg ccatatcgaa
 egggegetea aggecaagge caegegtace gggegtgtat eggegeggat tetegaegae
 atgctcgctg gggtcatcct gatcgacacc gccggtgcgg ccgtgggcaa atgcaacggg
 420
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ctgacggtgc tggaagtcgg cgattcggcg ttcggcgtgc cggcgcggat ttccgccacg
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Leu Leu Lys Thr Arg Thr Ser Glu Glu Gly Met Ala Pro Leu Thr Ser
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Asp Ala Val Ala Arg Leu Ala Thr Tyr Ser Ala Arg Leu Ala Asp His
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Gln Gly Arg Val Ser Ala Arg Ile Gly Asp Leu Phe Gln Leu Val Ser
Glu Ala Asp Phe Ile Arg His Leu Ala Gly Asp Glu Met Thr Asp Ala
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Gly His Ile Glu Arg Ala Leu Lys Ala Lys Ala Thr Arg Thr Gly Arg
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Val Ser Ala Arg Ile Leu Asp Asp Met Leu Ala Gly Val Ile Leu Ile
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Asp Thr Ala Gly Ala Ala Val Gly Lys Cys Asn Gly Leu Thr Val Leu
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Glu Val Gly Asp Ser Ala Phe Gly Val Pro Ala Arg Ile Ser Ala Thr
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Val Tyr Pro Gly Gly Ser Gly Ile Val Asp Ile Glu Arg Glu Val Asn
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Leu Gly Gln Pro Ile His Ser Lys Gly Val Met Ile Leu Thr Gly
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Ile Ala Ser Arg Phe Arg Leu Thr Glu Arg Glu Glu Val Ile Thr
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Cys Phe Glu Arg Ala Ser Trp Ile Ala Gln Val Phe Leu Gln Glu Leu
Glu Lys Thr Thr Asn Asn Ser Thr Ser Arg His Leu Lys Gly Cys His
                    70
Pro Leu Asp Tyr Glu Leu Thr Tyr Phe Leu Glu Ala Ala Leu Gln Ser
                85
                                   90
Ala Tyr Val Lys Asn Leu Lys Lys Gly Asn Ile Val Lys Gly Met Arg
                                                   110
                               105
Glu Leu Arg Glu Val Leu Arg Thr Val Glu Thr Lys Ala Thr Gln Asn
                           120
        115
Phe Lys Val Met Ala Ala Lys His Leu Ala Gly Val Leu Leu His Ser
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                                           140
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Leu Ser Gly Val Leu Leu Glu Pro Pro Val Pro Pro Ser Ala
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Gly Cys Ala Pro Thr Phe Phe Pro Asn Gln Ser Ser Gly Phe Thr Thr
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Pro Thr Ala Met Thr Pro Pro Val Leu Thr Thr Ala Glu Thr Ser Val
                             40
Lys Pro Ser Val Ser Ala Phe Thr His Ser Pro Pro Glu Asn Thr Thr
Gly Ile Ser Ser Thr Ile Ser Phe His Ser Arg Thr Leu Asn Leu Thr
                     70
 Asp Val Ile Glu Glu Leu Ala Gln Ala Ser Thr Gln Thr Leu Lys Ser
                                     90
 Thr Ile Ala Ser Glu Thr Thr Leu Ser Ser Lys Ser His Gln Ser Thr
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             100
 Thr Thr Arg Lys Ala Ile Ile Arg His Ser Thr Ile Pro Pro Phe Leu
                             120
 Ser Ser Ser Ala Thr Leu Ile Pro Val Pro Ile Ser Pro Pro Phe Thr
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Gln Arg Ala Val Thr Asp Asn Val Ala Thr Pro Ile Ser Gly Leu Met
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Thr Asn Thr Val Val Lys Leu
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Gly Arg Ser Ser Pro Gly Thr Ala Gln Pro Gly Pro Xaa Thr Lys Ser
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                                 25
Cys Cys Pro Pro Trp Leu Ser Ser Pro Pro Ala Ala Cys Leu Pro Ser
Ser Leu Leu Ser Pro Tyr Pro Val Leu Pro Ser Pro Ser Cys Lys Val
His Ala Thr Pro Gln Glu Glu Pro Gln Arg Leu Ser Ser Asp Pro Thr
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Leu Ser Ala Pro Thr Leu Pro Pro His Gln Ile Leu Ser Thr Pro
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                85
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Glu Cys Met Glu Ser Glu Gly Thr Gly Pro Thr His Ser Pro Ser Ser
                             40
Pro Ala Val Leu Phe Ser Phe Leu His Cys Ala Phe Val Ser Phe Leu
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Gly Thr Ser Phe Thr Pro Ala Cys Ile Ser Ser Leu Ser His Gly Ser
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 Pro Leu Ser Trp Ser Ser Gly Ala Val Pro Ile
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Pro Ser Glu Asp Ser Arg Gly Thr Phe Val Pro Asp Ile Leu His Gly
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Asn Phe Gln Glu Gly Gly Gln Leu Ala Ser Ala Ala Pro Asp Leu Trp
Ile Asp Ala Lys Lys Pro Phe Ser Leu Lys Ala Asp Gly Glu Asn Pro
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Asp Ile Leu Thr His Cys Glu His Asp Tyr Gly Glu Thr Thr Arg
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His Leu Leu Val Val Phe Phe Leu Val Gly Ala Val Pro Thr Ile Ser
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Ser Lys Phe Arg Arg Lys Phe Ile Val Lys Tyr Ser Ala Thr Ser Phe
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Leu Leu Cys His Leu Gly Gly Cys Asn Phe Pro His His Cys Arg
Val Leu Arg Asn Arg Leu Gln Pro Cys His Arg Ser Ser Gln Leu His
Gln Ala Phe Gly Arg Ala Val Ile Arg Leu Pro Ala Lys Ala Gln Ala
Ser His Ala Thr Ser Ser Pro Lys Met Arg Lys Val Arg Thr Arg Lys
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Gln Gly Ala Val Glu Arg Ser Ser Ala Pro
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	gtacagagca	gcaaacaagt	ccgtgagagc	atggcgtctg	gtgaggcacg
	gctgggggc	tgctgcccag	ggagggctat	ctgcggaggg	tcgggttctg
	ggtcttccgg	gcaggggcac	agctttgccc `	ttacttgctg	cctgcctcta

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geteggetee cagettteee tggggeeeca etetgtggte eteagagace tgtteeacag
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aagagagcag getggeeege tgtgetetae tgtgtetgte eeaggaeteg gaaggtaggg
agggagegtg gecagggegg etgeetgeag gtgegtgtee tgetgeteee caacteaaca
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aggaagtaac tggcccaagg gcacatgccc tggtgacaca ggcccatcct aggccctgac
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                            40
Ile Val His Pro Val Arg Val Asp Ala Gly Gly Ser Phe Leu Ser Tyr
                        55
Glu Leu Trp Pro Arg Ala Leu Arg Lys Arg Asp Val Ser Val Arg Arg
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                    70
Asp Ala Pro Ala Phe Tyr Glu Leu Gln Tyr Arg Gly Arg Glu Leu Arg
Phe Asn Leu Thr Ala Asn Gln His Leu Leu Ala Pro Gly Phe Val Ser
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Glu Thr Arg Arg Arg Gly Gly Leu Gly Arg Ala His Ile Arg Ala His
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Thr Pro Ala Cys His Leu Leu Gly Glu Val Gln Asp Pro Glu Leu Glu
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Gly Gly Leu Ala Ala Ile Ser Ala Cys Asp Gly Leu Lys Gly Val Phe
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Gln Leu Ser Asn Glu Asp Tyr Phe Ile Glu Pro Leu Asp Ser Ala Pro
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Ala Arg Pro Gly His Ala Gln Pro His Val Val Tyr Lys Arg Gln Ala
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             180
Pro Glu Arg Leu Ala Gln Arg Gly Asp Ser Sèr Ala Pro Ser Thr Cys
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			Tyr 260		_			265					270		
		275	Met				280					285			
	290		Ile			295					300				
305			Lys		310					315					320
-	-		Gln	325					330					335	
		_	Thr 340					345					350		
		355	Pro				360					365			
	370		His			375					380				
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	_		Ser	405					410					415	
			Pro 420					425					430		
		435	Arg				440					445			
	450		Asp			455					460				
465			Gly		470					475					480
			Tyr	485					490					495	
			Cys 500					505					510		
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	530		Pro			535					540				
545			Ser		550					555					560
			Ala	565					570					575	
_	•		Cys 580					585					590		
		595	Pro				600					605			
	610		Ala			615					620				
Val	Val	Asn	Asp	Val	Asn	Pro	Cys	Glu	Leu	His	Cys	Arg	Pro	Ala	Asn

										635					640
625			_ •	_	630	•	B	2	חות		Val	Acn	Cl v		
Glu	Tyr	Phe	Ala		Lys	Leu	Arg	ASP	650	Val	VGI	A3P	017	655	
_	_	<b>~1</b>	1	645	Ala	c ~ ~	7~~			Cvs	Tle	Asn	Glv		Cvs
Cys	Tyr	GIR		Arg	Ala	Ser	AL 9	665		0,0			670		•
•	3	17-1	660	Cvc	Asp	Dhe	Glu		Asp	Ser	Glv	Ala	Met	Glu	Asp
ьуs	Asn		GIY	Cys	АЗЪ	FIIC	680				,	685			•
<b>3</b>	<b></b>	675	1127	Cvc	His	Glv		Glv	Ser	Thr	Cvs		Thr	Val	Ser
Arg		GIY	Val	Cys		695	7.0	011			700				
<b>63</b>	690	Dho	V	7 × C	Arg		Ara	Val	Xaa	Glv	Tyr	Val	Asp	Val	Gly
	Int	Pne	Add	Arg	710					715	- 4		•		720
705	T10	Dro	λla	Glv	Ala	Arg	Glu	Ile	Arg	Ile	Gln	Glu	Val	Ala	Glu
Leu	116	PIO	AIG	725		••-5			730					735	
A 1 -	λla	Λen	Dhe	T.e.11	Ala	Leu	Ara	Ser	Glu	Asp	Pro	Glu	Lys	Tyr	Phe
Ala	AIG	7211	740					745		_			750		
T.e.i	Δsn	Glv	Glv	Trp	Thr	Ile	Gln	Trp	Asn	Gly	Asp	Tyr	Gln	Val	Ala
		755					760					765			
Glv	Thr	Thr	Phe	Thr	Tyr	Ala	Arg	Arg	Gly	Asn	Trp	Glu	Asn	Leu	Thr
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Arg	Glv	Pro	Gly	Gly	Gly	Ser	Arg	Gly	Gly	Val	Pro	Arg	Pro	Ser	Thr
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Leu	His	Gly	Arg	Ser	Arg	Pro	Gly	Gly	Val	Ser	Pro	Gly	Ser	Val	Thr
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Ser	Pro	Ser	Leu	Lys	Trp	Pro	Asn	Leu	Val	Ala	Ala	Val	His	Arg	GIY
	850					855			_		860	_			*
Gly	Trp	Gly	Gln	Ala	Pro	Leu	Gly	Leu	Gly	Gly	Trp	Arg	Arg	HIS	ren
865					870					875		<b>5</b> 1	<b>61</b> -	G1.,	880
Val	Leu	Met	Gly	Pro	Arg	Leu	Pro	Thr	Gln	Leu	Leu	Pne	GIN	895	Ser
				885			_		890		3	<b>~1</b>	212		Gly
Asn	Pro	Gly	Val	His	Tyr	Glu	Tyr	Thr	He	Hls	Arg	GIU	910	GIY	GIY
			900			_		905			ui a	T1.22		Pro	Trn
His	Asp			Pro	Pro	Pro			ser	irp	nis	925	GIY	FIO	Trp
		915		<b>-</b>	_,	<b>a</b>	920		C1.	. 17-1	Gl n		Gln	Asn	Val
Thr			Thr	Val	Thr			Arg	GIY	vai	940	n. g	0		
_	930	_		•	<b>~1</b>	935	C111	Dro	v-1	Λεη			His	Cvs	Asp
		Leu	GIU	Arg	950	Ald	GIY	PIO	Vai	955		01		-1-	Asp 960
945	•			Dro	320	Acn	Gln	Gln	Aro			Ser	Glu	Gln	Pro
Pro	Leu	GIY	Arg	965		ASP	GIII	. 0111	970	1	-1-			975	
<b>G</b>			7 ~~	705	Trp	Δla	Glv	Glu			Leu	Cys	Ser	Ser	Ser
Cys	PIC	, Ala	980		ııp	ALU	· •-1	985				•	990		
C	~1.	. Dro	, Glv		T.011	Ser	Ara			. Val	Leu	Cys	Ile	Arg	Ser
Cys	Gry	995		Gry	J- u	002	100					100	5		
12-1	<b>~1</b> .	, , , , ,	, Ner	C I II	Gln	Ser	· Ala	Leu	Gli	ı Pro	Pro	Ala	Cys	Glu	His
val	. GIŞ 101		. vsb	, 910	. 6111	101					102	0	-		
T	. D~-	. »~~	D~~	Dro	Thr			Pro	Cvs	. Asr			. Val	Pro	Cys
		, AIG	PIC	, 210	103		• • •		-,-	103	15				1040
102	.ם . אור	ጉኩ~	- <b>Т</b> УТ	. בוב	103 1ev	ัดเน	Asr	Tre	Ser			Ser	· Val	Thr	Cys
				104	. 5				109	50				10=	
C1-	, (1)	, (1)	, The	ינט י	. ב הא	Arc	Asr	val			Thr	Asr	Asp	Thr	Gly
GT.	GIL	4 61)			9		,								

1	.060		1065		1070	
Val Pro Cys A		Gln Gln 1086		Ser Glu	Val Thr 1085	Cys Ser
Leu Pro Leu C	ys Arg Trp	Pro Leu 1095	Gly Thr	Leu Gly 1100		Gly Ser
Gly Ser Gly S	1110	ס		1115		1120
Pro His His L	1125		1130	)		1135
Gly Thr Met G	Sly Asn Ala	Ile Glu	Glu Glu 1145	Ala Pro	Glu Leu 1150	
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Gly Lys Asp S		Gln Leu	Pro Pro 1305	Pro Trp	Arg Asp	
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His Leu Pro F	Pro Arg Pro	Ser Ser 1335	Thr Leu	Pro Pro		Pro Val
Gly Ser Thr F	His Ser Ser 135		Pro Asp	Val Ala 1355	Glu Leu	Trp Thr 1360
Gly Gly Thr \			Ala Leu 137		Gly Leu	Gly Pro 1375
Val Asp Ser (		Pro Thr	Val Gly 1385	Val Ala	Ser Leu 1390	
Pro Pro Ile /		Pro Glu 140	Met Lys	Val Arg	Asp Ser 1405	Ser Leu
Glu Pro Gly 7	Thr Pro Ser			Gly Pro		Trp Asp
Leu Gln Thr V	Val Ala Val 143	Trp Gly	Thr Phe	Leu Pro 1435	Thr Thr	Leu Thr 1440
Gly Leu Gly F			Ala Leu 145	Asn Pro	Gly Pro	Lys Gly 1455
Gln Pro Glu S		Pro Glu			Ser Arg	
Ser Thr Pro 1		Ser Pro	Ala Asn	Ser His		
Thr Gln Pro	Leu Ala Pro			Ala Gly		Ala Asp

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Cys Ser Thr Thr Cys Gly Leu Gly Ala Val Trp Arg Pro Val Arg Cys
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            1525
Ser Ser Gly Arg Asp Glu Asp Cys Ala Pro Ala Gly Arg Pro Gln Pro
        1540 1545
Ala Arg Arg Cys His Leu Arg Pro Cys Ala Thr Trp His Ser Gly Asn
    1565
Trp Ser Lys Cys Ser Arg Ser Cys Gly Gly Gly Ser Ser Val Arg Asp
  1570 1575
                                  1580
Val Gln Cys Val Asp Thr Arg Asp Leu Arg Pro Leu Arg Pro Phe His
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Cys Gln Pro Gly Pro Ala Lys Pro Pro Ala His Arg Pro Cys Gly Ala
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Gln Pro Cys Leu Ser Trp Tyr Thr Ser Ser Trp Arg Glu Cys Ser Glu
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Ala Cys Gly Gly Glu Gln Gln Arg Leu Val Thr Cys Pro Glu Pro
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Gly Leu Cys Glu Glu Ala Leu Arg Pro Asn Thr Thr Arg Pro Cys Asn
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                                  1660
Thr His Pro Cys Thr Gln Trp Val Val Gly Pro Trp Gly Gln Cys Ser
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      1715
Val Glu Pro Pro Arg Cys Glu Arg Asp Arg Leu Ser Phe Gly Phe Cys
   1730 1735 1740
Glu Thr Leu Arg Leu Leu Gly Arg Cys Gln Leu Pro Thr Ile Arg Thr
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 ttgaggacat ttgtacagag tcaggtaact ggaggaactg gactacaacc ctgctcagtg
 cagccagtgt gactgagege etectgagag ceaggtggat tetgeeetea aggatecatg
 ctctgggcaa gaaacccacc catcagcagg tggcttctgc tgagccacaa caggcacaca
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gaggggtcca tgggagccca gaggggagca tctgaccagg ctcaggggaa ggaatgtgtc
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gcagcaggac aaaagcatag aggtagcact gccagtgcca agttccaaaa taagaggctg
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tgtaacaaag gactttaatt ccaggttaag gaatctggat gttaaaacaa cattagctgc
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                                 25
Ile Phe Leu Tyr Gly Pro Cys Ser Ser Gln Pro Leu Ile Leu Glu Leu
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                             40
Gly Thr Gly Ser Ala Thr Ser Met Leu Leu Ser Cys Cys Ser Pro Ala
                         55
Trp Asn Val Pro Tyr Leu Ala Asn Ser Tyr Cys Ser Ser Val Thr Leu
                                         75
                     70
Leu Asp Thr Phe Leu Pro Leu Ser Leu Val Arg Cys Ser Pro Leu Gly
                                     90
                85
Ser His Gly Pro Leu Cys Val Pro Val Val Ala Gln Gln Lys Pro Pro
                                 105
            100
Ala Asp Gly Trp Val Ser Cys Pro Glu His Gly Ser Leu Arg Ala Glu
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gtgctgcaca agttctcggg ctacgggcag ctgtgcgagc gcggcctgga ggagctcatc
 180
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240
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Ile Asp Tyr Thr Gly Gly Leu Lys His Gln Ile Leu Gln Ser His Gly
        35
Gln Asp Ala Glu Leu Ser Gly Thr Leu Ser Leu Val Leu Thr Gln Gly
                                             60
Cys Lys Arg Ile Xaa Arg Gly Tyr Trp Phe Lys Asn Trp Pro Pro Thr
                                         75
                     70
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Arg Ile His Phe
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 aagtggtcga tagaagcccc agccggctta agccagttct ggaaaaccac cacatatcgc
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 geetegegta attettgggg accgaggtee teggegegee ggtetgaeee eaccgeettg
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 tectgecagt ecegegetge ecgaggeaag eteatecece agrigagetg ecaatacege
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Asn Pro Ser Gly Glu Ala His Val Arg Ser Val Leu Asn Ala Lys Phe
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Lys Ala Val Gly Ser Asp Arg Arg Ala Glu Asp Leu Gly Pro Gln Glu
                            40
                                                 45
        35
Leu Arg Glu Ala Ser Ala Ala Phe Phe Ala Gly Gly His Asp Val Ile
                                             60
                        55
Val Ala Arg Arg His Tyr Thr Asp Glu Gly Thr Thr Thr Ala Asp Val
                                         75
                    70
Ala Gly Ser Ala Ser Leu Thr Val Asn Glu His Arg Ala Phe Met Ala
                85
Leu Thr Val Asp Ser Met Ala Gln Leu His Arg His Asn Glu His Val
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120
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240
gaggegaate egegeattaa gageaaettt gatteegagg gegetgttgt ggateeggat
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Met Lys Pro Thr Glu Glu Ile Lys Arg Gln Phe Gln Gly Leu His Trp
                            40
Leu Gly Arg Lys Tyr Gly Leu Asn His Gly Glu Phe Tyr Leu Asp Asp
Glu Gln Trp Ala Thr Leu Met Ala Gly Ser Ser Phe Glu Ala Asn Pro
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Arg Ile Lys Ser Asn Phe Asp Ser Glu Gly Ala Val Val Asp Pro Asp
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Ala Cys Leu
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 Ala Gln Asn Thr Arg Gly Val Gln Ser Val Tyr Arg Ile Glu Pro Asp
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45

40

35

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Phe Val Gly Ala Gln Leu Asp Ser Val Phe Ser Asp Val Arg Ile Asp
                      55
                                          60
Ser Thr Lys Ile Gly Met Leu Ala Glu Ala Asp Ile Val Glu Ala Val
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Ala Glu Arg Leu Lys His Tyr Arg Val Lys Asn Val Val Leu Asp Thr
                                  90
Val Met Leu Ala Lys Ser Gly Asp Pro Leu Leu Ser Pro Ala Ala Val
                              105
           100
Glu Thr Leu Arg Lys His Leu Leu Pro His Val Ala Leu Ile Thr Pro
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Asn Leu Pro Glu Ala Ala Ala Leu Leu Asp Ala Pro His Ala Arg Thr
                                          140
                      135
Glu His Glu Met Lys Glu Gln Gly Arg Ala Leu Leu Ala Leu Gly Cys
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Glu Ala Val Leu Met Lys Gly Gly His Leu Asp Asp Pro Glu Ser Pro
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Asp Trp Leu Phe Thr Arg
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aaaggaaaaa cccctttttt ttttttttt ttttatacac atgagggtct ctggttaata
aatgttgaga tgtagggtta ggtgagatta aacaggttct ttttttcatg atttctcgga
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Pro Lys Pro Pro Gly Pro Pro Pro Gly Gly Ala Lys Gly Lys Thr Pro
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Phe Phe Phe Phe Phe Tyr Thr His Glu Gly Leu Trp Leu Ile Asn
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<213> Homo sapiens
<400> 2299
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ccgctttcac tcttcgaatt tgtgcttagc tcttttcttg taccctgcga ctcgtgacca
acatgetgtg atgtgtgccg agggaggaat tggtcagcta cacaacctgg atettaccac
agtttggata tgactgaggc tctccaatgg gccagatatc actggcgacg gctgatcaga
ggtgcaacca gggatgatga ttcagggcca tacaactatt cctcgttgct cgcctgtggg
cgcaagteet eteagateee taaaetgtea ggaaggeaee ggattgttgt teeceacate
cagecettea aggatgagta tgagaagtte teeggageet atgtgaacaa tegaataega
acaacaaagt acacacttct gaattttgtg ccaagaaatt tatttgaaca atttcacaga
 gctgccaatt tatatttcct gttcctagtt gtcctgaact gggtaccttt ggtagaagcc
 ttccaaaagg aaatcaccat gttgcctctg gtggtggtcc ttacaattat cgcaattaaa
 gatggcctgg aagattatcg gaaatacaaa attgacaaac agatcaataa tttaataact
 aaagtttata gtaggaaaga gaaaaaatac attgaccgat gctggaaaga cgttactgtt
 ggggacttta ttcgcctctc ctgcaacgag gtcatccctg cagacatggt actactcttt
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 ttaaaacaga ggcaggtggt tcggggatat gcagaacagg actctgaagt tgatcctgag
 aagttttcca gtaggataga atgtgaaagc ccaaacaatg acctcagcag attccgaggc
  ttcctagaac attccaacaa agaacgc
  987
  <210> 2300
  <211> 266
  <212> PRT
  <213> Homo sapiens
  Met Thr Glu Ala Leu Gln Trp Ala Arg Tyr His Trp Arg Arg Leu Ile
  <400> 2300
                                      10
  Arg Gly Ala Thr Arg Asp Asp Ser Gly Pro Tyr Asn Tyr Ser Ser
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30
                                25
Leu Leu Ala Cys Gly Arg Lys Ser Ser Gln Ile Pro Lys Leu Ser Gly
                            40
Arg His Arg Ile Val Val Pro His Ile Gln Pro Phe Lys Asp Glu Tyr
Glu Lys Phe Ser Gly Ala Tyr Val Asn Asn Arg Ile Arg Thr Thr Lys
Tyr Thr Leu Leu Asn Phe Val Pro Arg Asn Leu Phe Glu Gln Phe His
                85
                                    90
Arg Ala Ala Asn Leu Tyr Phe Leu Phe Leu Val Val Leu Asn Trp Val
                                105
Pro Leu Val Glu Ala Phe Gln Lys Glu Ile Thr Met Leu Pro Leu Val
                            120
Val Val Leu Thr Ile Ile Ala Ile Lys Asp Gly Leu Glu Asp Tyr Arg
                        135
Lys Tyr Lys Ile Asp Lys Gln Ile Asn Asn Leu Ile Thr Lys Val Tyr
                    150
Ser Arg Lys Glu Lys Lys Tyr Ile Asp Arg Cys Trp Lys Asp Val Thr
                165
                                    170
Val Gly Asp Phe Ile Arg Leu Ser Cys Asn Glu Val Ile Pro Ala Asp
                                185
Met Val Leu Leu Phe Ser Thr Asp Pro Asp Gly Ile Cys His Ile Glu
                            200
                                                205
Thr Ser Gly Leu Asp Gly Glu Ser Asn Leu Lys Gln Arg Gln Val Val
                       215
Arg Gly Tyr Ala Glu Gln Asp Ser Glu Val Asp Pro Glu Lys Phe Ser
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                   230
Ser Arg Ile Glu Cys Glu Ser Pro Asn Asn Asp Leu Ser Arg Phe Arg
                                    250
                245
Gly Phe Leu Glu His Ser Asn Lys Glu Arg
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<210> 2301
<211> 390
<212> DNA
<213> Homo sapiens
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nnegecacet etteegegna ttteeetgaa geetgegata acaetatgga aategetgag
nncgttgcca cgttgaattc aacacaaacg caanactaca tgcccgattt ccccaccccg
qaqqqqqaqa atqaqqaatc ctqqttcqtc aaaqaaqttq aacqcqqttt gcactaccqa
ttccccgagg gcattcccga tgacgtacgc aagcaggcag attatgaagt agggattatt
acccagatgg gattccccgg ctacttcttg gtggtcgcgg attttatcaa ctgggcgaag
aataacggaa ttcgagtggg ccccgggcgt
390
<210> 2302
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<211> 130
<212> PRT
<213> Homo sapiens
Tyr Pro Lys Arg Phe Lys Phe Asp Ala Asp Glu Phe Tyr Leu Lys Ser
                                    10
Ser Glu Glu Met Xaa Ala Thr Ser Ser Ala Xaa Phe Pro Glu Ala Cys
                                25
Asp Asn Thr Met Glu Ile Ala Glu Xaa Val Ala Thr Leu Asn Ser Thr
                            40
Gln Thr Gln Xaa Tyr Met Pro Asp Phe Pro Thr Pro Glu Gly Glu Asn
Glu Glu Ser Trp Phe Val Lys Glu Val Glu Arg Gly Leu His Tyr Arg
                     70
Phe Pro Glu Gly Ile Pro Asp Asp Val Arg Lys Gln Ala Asp Tyr Glu
                                     90
Val Gly Ile Ile Thr Gln Met Gly Phe Pro Gly Tyr Phe Leu Val Val
                                 105
            100
Ala Asp Phe Ile Asn Trp Ala Lys Asn Asn Gly Ile Arg Val Gly Pro
                             120
Gly Arg
    130
 <210> 2303
 <211> 638
 <212> DNA
 <213> Homo sapiens
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 geacetgtgt ttggetacet gggegacega catageegea aggetaceat gagetteggt
 atcttgctgt ggtcaggagc tggcctctct agctccttca tctccccccg gtattcttgg
 ctettettee tgteeegggg categaggge aetggetegg ceagetacte caccategeg
 cccaccgtcc tgggcgacct cttcgtgagg gaccagcgca cccgcgtgct ggctgtcttc
  tacatcttta teecegttgg aagtggtetg ggetacgtge tgggggtegge tgtgacgatg
  ctgactggga actggcgctg ggccctccga gtcatgccct gcctggaggc cgtggccttg
  atcctgctta tcctgctggt tccagaccca ccccggggag ctgccgagac acagggggag
  ggggccgtgg gaggcttcag aagcagctgg tgtgaggacg tcagatacct ggggaaaaac
  tggagttttg tgtggtcgac cctcggagtg accgccatgg cctttgtgac tggagccctg
  gggttctggg cccccaagtt tctgctcgag gcacgcgt
  638
  <210> 2304
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<211> 212
<212> PRT
<213> Homo sapiens
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Xaa Asp Pro Gly Cys Pro Cys Val Ser Pro Ser Val Phe Val Ser Cys
Leu Leu Ser Ala Pro Val Phe Gly Tyr Leu Gly Asp Arg His Ser
                                25
            20
Arg Lys Ala Thr Met Ser Phe Gly Ile Leu Leu Trp Ser Gly Ala Gly
                            40
Leu Ser Ser Ser Phe Ile Ser Pro Arg Tyr Ser Trp Leu Phe Phe Leu
                        55
Ser Arg Gly Ile Glu Gly Thr Gly Ser Ala Ser Tyr Ser Thr Ile Ala
                                        75
                    70
Pro Thr Val Leu Gly Asp Leu Phe Val Arg Asp Gln Arg Thr Arg Val
                                    90
Leu Ala Val Phe Tyr Ile Phe Ile Pro Val Gly Ser Gly Leu Gly Tyr
Val Leu Gly Ser Ala Val Thr Met Leu Thr Gly Asn Trp Arg Trp Ala
                                                125
                            120
        115
Leu Arg Val Met Pro Cys Leu Glu Ala Val Ala Leu Ile Leu Leu Ile
                        135
Leu Leu Val Pro Asp Pro Pro Arg Gly Ala Ala Glu Thr Gln Gly Glu
                    150
                                        155
Gly Ala Val Gly Gly Phe Arg Ser Ser Trp Cys Glu Asp Val Arg Tyr
                                    170
                165
Leu Gly Lys Asn Trp Ser Phe Val Trp Ser Thr Leu Gly Val Thr Ala
                                                    190
                                185
Met Ala Phe Val Thr Gly Ala Leu Gly Phe Trp Ala Pro Lys Phe Leu
                            200
Leu Glu Ala Arg
    210
<210> 2305
<211> 340
<212> DNA
<213> Homo sapiens
<400> 2305
geoccegect ctatetteeg geategteae agtegeateg tgaeggtaet ggetggagte
teggaceage acaetttgae egtegtggte geetegtgae atggggtaae gegaaceteg
tegeteetgt tettgacete tteegtgeee ceattgacaa egategggea agtteaetgg
cccgcaacgc tattggtgac gcagcactcg cagctggtct cgaccgactc gtccacacca
cggcgtcggt gcgcgacgag ggcgatgagt tggtcgtcgt tactcgcagc gctgctgccg
ccgcacgcaa ttccatgacg acaacgtgga gttggcgcgc
340
<210> 2306
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<211> 101
<212> PRT
<213> Homo sapiens
<400> 2306
Met Glu Leu Arg Ala Ala Ala Ala Leu Arg Val Thr Thr Asn
                                    10
Ser Ser Pro Ser Ser Arg Thr Asp Ala Val Val Trp Thr Ser Arg Ser
                                25
            20
Arg Pro Ala Ala Ser Ala Ala Ser Pro Ile Ala Leu Arg Ala Ser Glu
Leu Ala Arg Ser Leu Ser Met Gly Ala Arg Lys Arg Ser Arg Thr Gly
                        55
Ala Thr Arg Phe Ala Leu Pro His Val Thr Arg Arg Pro Arg Arg Ser
                    70
Lys Cys Ala Gly Pro Arg Leu Gln Pro Val Pro Ser Arg Cys Asp Cys
                                    90
Asp Asp Ala Gly Arg
            100
<210> 2307
<211> 360
<212> DNA
<213> Homo sapiens
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gccaaggcac tgggtggggc tggcagtggg agcaagggct cagcaggtgg cggaagcaag
 cgacggctga gcagcgaaga cagctccctg gagccagacc tggccgagat gagcctggat
 gacagcagcc tggccctggg cgcagaggcc aggaccttcg ggggattccc tgagagccct
 ccaccetgte etetecacgg tggetecega ggecetteca ettteettee tgageececa
 gatacttatg aagaagatgg tgatgagagt ggcaatgggc ttcccaaaac caaagaggca
 360
 <210> 2308
 <211> 120
 <212> PRT
 <213> Homo sapiens
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 Xaa Phe Ser Ala Glu Gly Gly Asp Lys Ala Leu His Lys Met Gly Pro
 Gly Gly Gly Lys Ala Lys Ala Leu Gly Gly Ala Gly Ser Gly Ser Lys
  Gly Ser Ala Gly Gly Ser Lys Arg Arg Leu Ser Ser Glu Asp Ser
                              40
  Ser Leu Glu Pro Asp Leu Ala Glu Met Ser Leu Asp Asp Ser Ser Leu
                          55
  Ala Leu Gly Ala Glu Ala Arg Thr Phe Gly Gly Phe Pro Glu Ser Pro
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75
                    70
65
Pro Pro Cys Pro Leu His Gly Gly Ser Arg Gly Pro Ser Thr Phe Leu
                85
Pro Glu Pro Pro Asp Thr Tyr Glu Glu Asp Gly Asp Glu Ser Gly Asn
                                105
            100
Gly Leu Pro Lys Thr Lys Glu Ala
        115
<210> 2309
<211> 395
<212> DNA
<213> Homo sapiens
<400> 2309
ggatecetae aaatggggee etgetetgag cacatteeca tgagggetge etgeeetgtg
cactetetge cetgggeege ggggeetgae tgggtteeca ceteeteeta eccaetgggg
tettttccag caggeacagg gatteeteat gggggaggea gageecacce gtetgteete
ggtgacggcc tgagctgtgc acggcctccc ctgccctcct gttctcaggc cccccagggt
ccatccagcc ccagcgtgtg gcgttctggc tcttccctgg agtctcctcc cagaccacgc
gactccactc acactgtgcc tagcggactg tgtggttgat gcagccggct cacttgagtg
tgttgtgtta tgcccacaac aggcttgccg tcacc
395
<210> 2310
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2310
Met Gly Pro Cys Ser Glu His Ile Pro Met Arg Ala Ala Cys Pro Val
His Ser Leu Pro Trp Ala Ala Gly Pro Asp Trp Val Pro Thr Ser Ser
Tyr Pro Leu Gly Ser Phe Pro Ala Gly Thr Gly Ile Pro His Gly Gly
                             40
Gly Arg Ala His Pro Ser Val Leu Gly Asp Gly Leu Ser Cys Ala Arg
                        55
Pro Pro Leu Pro Ser Cys Ser Gln Ala Pro Gln Gly Pro Ser Ser Pro
                    70
                                         75
Ser Val Trp Arg Ser Gly Ser Ser Leu Glu Ser Pro Pro Arg Pro Arg
                85
                                     90
Asp Ser Thr His Thr Val Pro Ser Gly Leu Cys Gly
            100
                                 105
<210> 2311
<211> 378
<212> DNA
<213> Homo sapiens
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60
gatgtcggca gtcccatggg cggcagcgcg gacgtggctc tcgaaacggc cgatgctgcc
gtccttcacg gacgggtggg ggacgtcttc gcgatgatcg ccctatcgaa gcgaaccatg
gccaacattc gacagaacat cgcgatcgcg atcgggctaa aggcggtgtt ccttgtaacg
acceptcgtcg gcatcacggg gctttggcct gcaatcctcg ccgatacggg gaccacggag
cttgtgacca tgaacgcg
378
<210> 2312
<211> 126
<212> PRT
<213> Homo sapiens
<400> 2312
Val His Ala Glu Met Leu Pro Gln Asp Lys Gln Arg Val Val Gly Glu
                                     10
Leu Lys Arg Gln Gly Phe Ser Val Ile Lys Val Gly Asp Gly Ile Asn
                                 25
             20
 Asp Cys Asp Ala Leu Ala Ala Ala Asp Val Gly Ser Pro Met Gly Gly
                             40
 Ser Ala Asp Val Ala Leu Glu Thr Ala Asp Ala Ala Val Leu His Gly
                                              60
                         55
 Arg Val Gly Asp Val Phe Ala Met Ile Ala Leu Ser Lys Arg Thr Met
                                          75
                     70
 Ala Asn Ile Arg Gln Asn Ile Ala Ile Ala Ile Gly Leu Lys Ala Val
                                      90
                 85
 Phe Leu Val Thr Thr Val Val Gly Ile Thr Gly Leu Trp Pro Ala Ile
                                 105
 Leu Ala Asp Thr Gly Thr Thr Glu Leu Val Thr Met Asn Ala
                              120
         115
 <210> 2313
  <211> 669
  <212> DNA
  <213> Homo sapiens
  <400> 2313
  ctagtggcat ggtctcgctg gtctttagtg gagcataccg acacatcggt gactcaaacg
  atccgaatca tggctcgtcc tggttggcct ggaaccatta acgtacgcct cacccatcgc
  ttaagcgacg ccggtctagc tgtcgaagtc accgcgcgca atgtcggtac gacagcgggg
  ccgcttggat acgcagcaca cccctatctc tgtctgggtg gcaccatcga cgactggaca
  240
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gtcgacgccc cgtttacctc gtggttacag gtcgatgatc ggctgctacc aatgcagatg
cgcgagatgg acagcatcca cgcgctgaac ggtctcacgg gcggacagcg caccttcgat
accepttaca cogtgaaagg aggacggaac cgtcggatcg cccgcatggc gtatccgggt
ctcaacggtg aaacgagcca cgaattgtgg ggcgacgccg cgatgagctg ggtgcaagtc
tacactccaq acqaccqcca caqtctqqcc atcqaqccaa tgacctqcqq cccaqatqca
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ttcacgcgt
669
<210> 2314
<211> 206
<212> PRT
<213> Homo sapiens
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Leu Val Ala Trp Ser Arg Trp Ser Leu Val Glu His Thr Asp Thr Ser
Val Thr Gln Thr Ile Arg Ile Met Ala Arg Pro Gly Trp Pro Gly Thr
                                25
Ile Asn Val Arg Leu Thr His Arg Leu Ser Asp Ala Gly Leu Ala Val
                            40
Glu Val Thr Ala Arg Asn Val Gly Thr Thr Ala Gly Pro Leu Gly Tyr
Ala Ala His Pro Tyr Leu Cys Leu Gly Gly Thr Ile Asp Asp Trp Thr
                    70
                                        75
Val Asp Ala Pro Phe Thr Ser Trp Leu Gln Val Asp Asp Arg Leu Leu
                                    90
Pro Met Gln Met Arg Glu Met Asp Ser Ile His Ala Leu Asn Gly Leu
                                105
Thr Gly Gly Gln Arg Thr Phe Asp Thr Ala Tyr Thr Val Lys Gly Gly
                            120
Arg Asn Arg Arg Ile Ala Arg Met Ala Tyr Pro Gly Leu Asn Gly Glu
                        135
                                            140
Thr Ser His Glu Leu Trp Gly Asp Ala Ala Met Ser Trp Val Gln Val
                    150
                                        155
Tyr Thr Pro Asp Asp Arg His Ser Leu Ala Ile Glu Pro Met Thr Cys
                165
                                    170
Gly Pro Asp Ala Phe Asn Glu Gly Pro Thr His Gly Asp Val Ile Arg
                                185
Leu Glu Pro Gly Asn Asp Val Thr Leu His Trp Gly Ile Ala
                            200
        195
<210> 2315
<211> 546
<212> DNA
<213> Homo sapiens
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<400> 2315
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acccaaggcc gaccaattcg catcgataag gcggtcgctt atcacacttc tcgcggcgtg
ceggtacatg aactgtttga cegagtgege egeagettag acegagtgeg tgaacagggg
cacaacgtct actacgacga acagcgtgca tggcttgacg attactgggc aacggctgat
gttgaggtcg agggtgcccc gaccggtatt cagcaggctg tcaggtggaa ccttttccag
attgctcagg catcagcccg tgcagatcaa cttggcattc cggcaaaggg tgtaaccggg
tcaggctatg aaggccacta cttttgggac actgaggttt atgtcatccc gatgttgacc
tacactcatc caagaatcgc tgagaatgcg ctgagattcc gggtgaatac ccttccgcaa
getegacgee gggetaagga attgtetgaa egaggegeee tttteeegtg gegaacaate
accggt
546
<210> 2316
<211> 182
<212> PRT
<213> Homo sapiens
<400> 2316
Xaa Ala Ser Leu Ile Asp Thr Glu Pro Gly Met Gly Lys Arg Val Tyr
                                     10
Arg Val Glu Ala Thr Gln Gly Arg Pro Ile Arg Ile Asp Lys Ala Val
                                 25
             20
 Ala Tyr His Thr Ser Arg Gly Val Pro Val His Glu Leu Phe Asp Arg
                             40
 Val Arg Arg Ser Leu Asp Arg Val Arg Glu Gln Gly His Asn Val Tyr
                                             60
 Tyr Asp Glu Gln Arg Ala Trp Leu Asp Asp Tyr Trp Ala Thr Ala Asp
                                         75
                     70
 Val Glu Val Glu Gly Ala Pro Thr Gly Ile Gln Gln Ala Val Arg Trp
                                     90
 Asn Leu Phe Gln Ile Ala Gln Ala Ser Ala Arg Ala Asp Gln Leu Gly
                                 105
 Ile Pro Ala Lys Gly Val Thr Gly Ser Gly Tyr Glu Gly His Tyr Phe
                             120
 Trp Asp Thr Glu Val Tyr Val Ile Pro Met Leu Thr Tyr Thr His Pro
                         135
 Arg Ile Ala Glu Asn Ala Leu Arg Phe Arg Val Asn Thr Leu Pro Gln
                                          155
                     150
 Ala Arg Arg Arg Ala Lys Glu Leu Ser Glu Arg Gly Ala Leu Phe Pro
                                      170
               _ 165
  Trp Arg Thr Ile Thr Gly
             180
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<210> 2317
<211> 496
<212> DNA
<213> Homo sapiens
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cagetgetga egetgetgtg atgeegagga gateggagae gattegtggg tgeatetgee
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gacgtcggct gagtgggcct ggtgtgagat gcaaccccgg attcctgcca ggaaagagcc
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cgggcagttc gattggctcg gctccgatgg tgagcttccc cggtcgtgat gtcacgtcga
cctgctcacg ggtgagcgcg acgatgcgag tgaggtggag gccgtagagg agcacgagca
480
acccagcggc acgcgt
496
<210> 2318
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2318
Met Pro Arg Arg Ser Glu Thr Ile Arg Gly Cys Ile Cys Arg Val Ser
                                    10
Ser Ile Ser Ala Val Val Arg Ala Leu Pro Glu Arg Ser Pro Cys Trp
            20
Arg Arg Arg Leu Ser Gly Pro Gly Val Arg Cys Asn Pro Gly Phe
                             40
Leu Pro Gly Lys Ser His Pro Ser Gly Arg Cys Leu Asp Val Ser Ala
                                             60
                        55
    50
Ser Ser Ala Ile Ala Phe Pro Arg Thr Ser Gly Ser Ser Ile Gly Ser
                                         75
                    70
Ala Pro Met Val Ser Phe Pro Gly Arg Asp Val Thr Ser Thr Cys Ser
                                     90
Arg Val Ser Ala Thr Met Arg Val Arg Trp Arg Pro
                                 105
            100
<210> 2319
<211> 1748
<212> DNA
<213> Homo sapiens
<400> 2319
ntgatcaagt ctcggtctct ggattatacc tttgttcctc gaacttggat ctttcctgct
60
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gaatatactc	aattccaaaa	ttatgtgaaa	gaattgaaga	aaaaacggaa	gcagaaaact
	aaccagctaa	tggtgcaatg	ggtcatggga	tttctttgat	aagaaatggt
180 gacaaacttc	catctcagga	tcatttgatt	gttcaagaat	acattgaaaa	gcctttccta
240 atggaaggtt	acaagtttga	cttacgaatt	tatattctgg	ttacatcgtg	tgatccacta
300 aaaatatttc	tctaccatga	tgggcttgtg	cgaatgggta	cagagaagta	cattccacct
360 aatgagtcca	atttgaccca	gttatacatg	catctgacaa	actactccgt	gaacaagcat
420 aatgagcatt	ttgaacggga	tgaaactgag	aacaaaggca	gcaaacgttc	catcaaatgg
480 tttacagaat	tccttcaagc	aaatcaacat	gatgttgcta	agttttggag	tgatatttca
540 gaattggtgg	taaagaccct	gattgtagca	gaacctcatg	tcctgcatgc	ctatcgaatg
600 tgtagacctg	gtcaacctcc	aggaagcgaa	agtgtctgct	ttgaagtcct	gggatttgat
	atagaaaact	aaagccatgg	cttctggaga	ttaaccgagc	cccaagcttt
720 ggaactgatc	agaaaataga	ctatgatgta	aaaaggggag	tgctgctaaa	tgcgttgaag
780 ctactaaaca	taaggaccag	tgacaaaaga	agaaacttgg	ccaaacaaaa	agctgaggct
840 caaaggaggc	tctatggtca	aaattcaatt	aaaaggctct	taccaggctc	ctcagactgg
900 gaacagcaga	gacaccagtt	ggagaggcgg	aaagaagagt	tgaaagagag	actcgctcaa
960 gtacgaaagc	agatctcacg	agaagaacat	gaaaatcgac	atatggggaa	ttatagacga
1020 atttatcctc	ctgaagataa	agcattactt	gaaaagtatg	aaaatttgtt	agctgttgcc
1080 tttcagacct	tcctttcagg	aagagcagct	tcattccagc	gagagttgaa	taatcctttg
1140 aaaaggatga	aggaagaaga	tattttggat	cttctggagc	aatgtgaaat	tgatgatgaa
1200 aagttgatgg	gaaaaactac	caagactcga	ggaccaaagc	ctctgtgttc	tatgcctgag
1260 agtactgaga	taatgaaaag	accaaagtac	tgcagcagtg	acagcagtta	tgatagtagc
1320 agcagctctt	cagaatctga	cgaaaatgaa	aaagaagagt	. accaaaataa	gaaaagagaa
1380 aagcaagtta	catataatct	taaaccctcc	: aaccactaca	aattaattca	acaacccagc
1440 tccataagac	gttcagtcag	ctgccctcgg	tccatctctg	ctcaatcaco	: ttccagtggg
1500 gacacccgcc	cattttctg	: tcaacaaatg	, atatctgtgt	cacggccaac	ttctgcatct
1560					cacagtaatg
1620					a acaaaagaac
1680			•		

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aagaagatga totaacaagt cagacottat ttgttotcaa agacatgaag atcoggttto
caggaaag
1748
<210> 2320
<211> 532
<212> PRT
<213> Homo sapiens
<400> 2320
Xaa Ile Lys Ser Arg Ser Leu Asp Tyr Thr Phe Val Pro Arg Thr Trp
                                  10
Ile Phe Pro Ala Glu Tyr Thr Gln Phe Gln Asn Tyr Val Lys Glu Leu
                              25
Lys Lys Lys Arg Lys Gln Lys Thr Phe Ile Val Lys Pro Ala Asn Gly
                           40
Ala Met Gly His Gly Ile Ser Leu Ile Arg Asn Gly Asp Lys Leu Pro
                       55
Ser Gln Asp His Leu Ile Val Gln Glu Tyr Ile Glu Lys Pro Phe Leu
                   70
                                      75
Met Glu Gly Tyr Lys Phe Asp Leu Arg Ile Tyr Ile Leu Val Thr Ser
                                 90
Cys Asp Pro Leu Lys Ile Phe Leu Tyr His Asp Gly Leu Val Arg Met
                              105
Gly Thr Glu Lys Tyr Ile Pro Pro Asn Glu Ser Asn Leu Thr Gln Leu
                          120
Tyr Met His Leu Thr Asn Tyr Ser Val Asn Lys His Asn Glu His Phe
                    135
Glu Arg Asp Glu Thr Glu Asn Lys Gly Ser Lys Arg Ser Ile Lys Trp
                  150
                                      155
Phe Thr Glu Phe Leu Gln Ala Asn Gln His Asp Val Ala Lys Phe Trp
                                  170
              165
Ser Asp Ile Ser Glu Leu Val Val Lys Thr Leu Ile Val Ala Glu Pro
                              185
His Val Leu His Ala Tyr Arg Met Cys Arg Pro Gly Gln Pro Pro Gly
                          200
Ser Glu Ser Val Cys Phe Glu Val Leu Gly Phe Asp Ile Leu Leu Asp
                       215
                                          220
Arg Lys Leu Lys Pro Trp Leu Leu Glu Ile Asn Arg Ala Pro Ser Phe
                   230
Gly Thr Asp Gln Lys Ile Asp Tyr Asp Val Lys Arg Gly Val Leu Leu
                                  250
              245
Asn Ala Leu Lys Leu Leu Asn Ile Arg Thr Ser Asp Lys Arg Arg Asn
                                                 270
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Leu Ala Lys Gln Lys Ala Glu Ala Gln Arg Arg Leu Tyr Gly Gln Asn
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Ser Ile Lys Arg Leu Leu Pro Gly Ser Ser Asp Trp Glu Gln Gln Arg
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His Gln Leu Glu Arg Arg Lys Glu Glu Leu Lys Glu Arg Leu Ala Gln
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Val Arg Lys Gln Ile Ser Arg Glu Glu His Glu Asn Arg His Met Gly
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Asn Tyr Arg Arg Ile Tyr Pro Pro Glu Asp Lys Ala Leu Leu Glu Lys
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Glu Glu Asp Ile Leu Asp Leu Leu Glu Gln Cys Glu Ile Asp Asp Glu
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Lys Leu Met Gly Lys Thr Thr Lys Thr Arg Gly Pro Lys Pro Leu Cys
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Ser Met Pro Glu Ser Thr Glu Ile Met Lys Arg Pro Lys Tyr Cys Ser
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Ser Asp Ser Ser Tyr Asp Ser Ser Ser Ser Ser Glu Ser Asp Glu
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Asn Glu Lys Glu Glu Tyr Gln Asn Lys Lys Arg Glu Lys Gln Val Thr
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Tyr Asn Leu Lys Pro Ser Asn His Tyr Lys Leu Ile Gln Gln Pro Ser
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Ser Ile Arg Arg Ser Val Ser Cys Pro Arg Ser Ile Ser Ala Gln Ser
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Pro Ser Ser Gly Asp Thr Arg Pro Phe Ser Ala Gln Gln Met Ile Ser
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Ile Cys Phe Ser Thr Ser Ile Asn Gly Leu Leu Pro Ala Ile Met Thr
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Cys Met His Leu Leu Ser Ser Phe Ser Lys Gln Lys Lys Leu Cys Gly
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                    70
Cys Ile Ser Arg Thr Leu Asn His Phe Gln Asp Ser Ile Glu Leu Glu
Thr His Ile Asp Thr Ser Thr Gln Leu
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240
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Gly Ala Asp Ala Asp Val Val Trp Asp Pro Glu Ala Thr Lys Thr
Ile Ser Ala Ser Thr Gln Val Gln Gly Gly Asp Phe Asn Leu Tyr Glu
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Phe Cys Pro Leu Arg Ser Phe Pro Asp Thr Val Tyr Lys Lys Leu Val
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Leu Trp Ala Leu Thr Ala Asp Ala Phe Gln Leu Ser Thr Val Met Trp
Met Leu Gly Ala Trp Val Val Leu Phe Leu Val Leu Phe Val Ile Gln
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120
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1740					

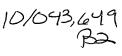
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                            40
Glu Ser Phe Trp Arg Leu Thr Val Phe Phe Val Ser Leu Ser Leu Leu
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Gly Val Ile Leu Ile Ala Phe Gln Gln Ala Gln Tyr Ile Leu Met Glu
                                       75
Phe Met Lys Thr Arg Gln Arg Gln Asn Ala Ser Ser Ser Gln Gln
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Asn A				85	N	17-1	Tla	Sar		His	Ser	Tvr	Lvs		Asn
Asn A	Asn (	Gly		мет	Asp	vai	116	105	110			- 1 -	110		
Cys 1		·	100	t au	) en	Thr	TVY	Glv	Pro	Ser	Asp	Lys		Arg	Gly
Cys		115	Pne	Leu	rsb		120	,			•	125	-		
Lys i	N = = =	L72	T All	Pro	Val	Asn	Thr	Pro	Gln	Ser	Arg	Ile	Gln	Asn	Ala
-	220					135					140				
Ala	130	h ra	Ser	Pro	Ala	Thr	Tvr	Gly	His	Ser	Gln	Lys	Lys	His	Lys
1 4 5					150					122					100
Cys :	Ser	Val	Tvr	Tvr	Ser	Lys	His	Lys	Thr	Ser	Thr	Ala	Ala	Ala	Ser
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Ser '	Thr	Ser	Thr	Thr	Thr	Glu	Glu	Lys	Gln	Thr	Ser	Pro	Leu	Gly	Ser
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Lys	Asn	Leu	Thr	Leu		Lys	Asn	Leu	Leu	Asn	гÀг	GIU	GIU	ASII	240
225				_	230		_		D	235	Sox	Clu	Cvs	Ser	
Leu	Lys	Asn	Thr		Val	Phe	ser	ASI	250	Ser	261	GIU	Cys	255	
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Lys	Glu	GIA		GIN	Inr	Cys	Mec	265	FLO	<i>D</i>	014		270		•
_,	• • • •	<b>a</b> 1	260	Th~	בות	Glu	Dhe		Glu	Arg	Glu	Leu	Cys	Pro	Leu
Thr	ser	275	ASII	1111	AIG	010	280					285	_		
T 140	Thr	Ser	LVS	Lvs	Leu	Pro		Asn	His	Leu	Pro	Arg	Asn	Ser	Pro
_	290					295					300				
Gln	Tvr	His	Gln	Pro	Asp	Leu	Pro	Glu	Ile	Ser	Arg	Lys	Asn	Asn	Gly
205					310					315					320
Asn	Asn	Gln	Gln	Val	Pro	Val	Lys	Asn	Glu	Val	Asp	His	Cys	Glu	Asn
				325					330					335	
Leu	Lys	Lys	Val	Asp	Thr	Lys	Pro	Ser	Ser	Glu	Lys	Lys	350	nıs	гуз
			340				_	345	<b>.</b>	<b>61</b> -	7.55	Tla			Val
Thr	Ser			Asp	Met	Phe	ser	GIU	Lys	GIII	ASP	365	110	1	Val
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Glu		Glu	Asp	Pro	Tyr	375	гус	гуз	. цуз	пец	380		-1-		Glu
	370	t	C1 n	λαπ	T ALL	750	Trn	Ser	Lvs	Ser			Cys	Arg	Lys
	ASII	rea	GIII	. ASII	390				1 -	395	•		_		400
385	Lve	Lvs	Ara	Glv	. Val	Ala	Pro	Val	Ser	Arg	Pro	Pro	Glu	Gln	Ser
				405	,				410	)				413	
Asp	Leu	Lvs	Leu	Val	Cys	Ser	Asp	Phe	Glu	ı Arg	Ser	Glu	Leu	Ser	Ser
			420	1				425	5				430		
Asp	Ile	Asn	Val	Arg	Ser	Trp	Cys	Ile	Glr	ı Glu	Ser	Thr	Arg	Glu	Val
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	450					455	5				460				
Glu	Ala	Gly	Tyr	туг			Pro	Glu	ı Lys	Lys	. Cys	val	, ASP	, nys	Phe 480
465					470	)	_	<b>63</b>		475		- 61.	, CAY	· Val	
Cys	Ser	Asp	Ser			: Asp	суя	GI	y Sei	. ser	. ser	GIY	Jer	495	Arg
		_	٠,	489	. m	. 01-		. T~~	490	r Car	ጉ ጉ	Ser	Ser		
Ala	Ser	Arg			TI	ענט י	y sei	509	, 3e,				510	)	Asp
~3	•		500	. D~.	, Met	- 1/a	l Acr			n Hìs	s Phe	. Lei	ı Pro	Ala	Gly
GIŸ	Asp	гÀг	, nys	o PI	ושויו ע	. va.	- val								

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Asn Leu Ser His Asn Ile Cys Asn Pro Met Thr Val Asn Ser Leu Pro
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Val Glu Glu Asp Lys Gly Leu Tyr Ser Pro Gly Asp Leu Trp Pro Thr
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            580
Pro Pro Val Cys Val Thr Ser Ser Leu Asn Cys Thr Leu Glu Asn Gly
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Val Pro Cys Val Ile Gln Glu Ser Ala Pro Val His Asn Ser Phe Ile
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Asp Trp Ser Ala Thr Cys Glu Gly Gln Phe Ser Ser Ala Tyr Cys Pro
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                                       635
Leu Glu Leu Asn Asp Tyr Asn Ala Phe Pro Glu Glu Asn Met Asn Tyr
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His Asn Ser Gln Ser Thr Trp Asn Thr Pro Pro Asn Met Pro Ala Ala
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Trp Gly His Ala Ser Phe Ile Ser Ser Pro Pro Tyr Leu Thr Ser Thr
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Gln Ser Asp Val Tyr Glu Asn Cys Cys Pro Ile Asn Pro Thr Thr Glu
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His Ser Thr His Met Glu Asn Gln Ala Val Val Cys Lys Glu Tyr Tyr
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Gln Phe Arg Lys Asn Gly Leu Pro Tyr Ile Met His Pro Ile Gln Val
Ala Gly Ile Leu Thr Glu Met Arg Leu Asp Gly Pro Thr Ile Val Ala
Gly Phe Leu His Asp Val Ile Glu Asp Thr Pro Tyr Thr Phe Glu Asp
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Val Lys Glu Met Phe Asn Glu Glu Val Ala Arg Ile Val Asp Gly Val
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Phe Ile His Thr Leu Thr Arg Leu Gln Leu Glu Gln Glu Ala Glu Ser
                            40
Phe Arg Glu Leu Glu Ala Pro Ala Gln Gly Ser Pro Pro Ser Pro Gly
                        55
Glu Glu Ala Leu Val Pro Thr Phe Pro Leu Ala Lys Pro Pro Met Asn
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Asn Glu Leu Gly Asp Asn Ser Cys Ser Ser Asp Met Thr Asp Ser Ser
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Thr Ala Ser Ser Ser Ala Ser Gly Thr Ser
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ttetetgeac cagetteect getgggetee agggeecaca ggetgaggee gggggeecag
 gggtcaatgc caggcaccct gctattgagg aacctatcca ggaggaagga ctcgggcaga
 cctgcgggat cctcgtcctc ccacgggtcc tcatggcaga agcagaagga gctggagtcg
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 <211> 98
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 <213> Homo sapiens
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                                  25
 Arg Leu Arg Pro Gly Ala Gln Gly Ser Met Pro Gly Thr Leu Leu Leu
                              40
 Arg Asn Leu Ser Arg Arg Lys Asp Ser Gly Arg Pro Ala Gly Ser Ser
 Ser Ser His Gly Ser Ser Trp Gln Lys Gln Lys Glu Leu Glu Ser Leu
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65
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Ser Lys
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<212> DNA
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gagttactcc totacactgg tgtgaacaag accggagaat tcccccccat attotcgttt
congctogto cognacytea tigggactgg cittiangeg gragitggitg cognaciots
gttgctctgc ggcacggtcg gcagggggat catgtcatga gtccgacggt gagcgagcgg
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Thr Gly Glu Phe Pro Pro Ile Phe Ser Phe Pro Ala Arg Pro Ala Arg
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His Trp Asp Trp Leu Leu Arg Gly Ser Gly Cys Arg Thr Leu Val Ala
                            40
Leu Arg His Gly Arg Gln Gly Asp His Val Met Ser Pro Thr Val Ser
Glu Arg Arg Leu Ser Ala Pro Met Arg Arg Gly Ile Val Ala Leu Cys
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Val Ala Met Ala Phe Val Leu Ser Gly Cys Gly Ala
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<210> 2341
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ggagccaccg cacaggccca tgccccttca cctagcacca gcagcagcac cagcagccag
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ggaagtggag agcagtgtga aacccacctt gtcagtgccc tcagtcaccc caagtacagt
360
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<210> 2342
<211> 113
<212> PRT
<213> Homo sapiens
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Gly Gly Gly Lys Gly Arg Arg Gly Glu Gly Glu Gly Ser Arg Gly
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                                25
Gly Gly Gly Arg Gly Arg Ala Ala Pro Val Ser Gly Ser Pro Gly Ala
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                            40
Thr Ala Gln Ala His Ala Pro Ser Pro Ser Thr Ser Ser Ser Thr Ser
                                            60
    50
                        55
Ser Gln Ser Pro Gly Ala Thr Arg His Arg Gln Glu Asp Ser Gly Asp
65
                    70
                                        75
Gln Ala Thr Ser Gly Xaa Gly Ser Gly Glu Gln Cys Glu Thr His Leu
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Val Ser Ala Leu Ser His Pro Lys Tyr Ser Gly Pro Gly Gly Ser Glu
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Leu
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agecetgate agageteaat geceatgage aacgtgggea ecaceegget cagecacatg
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cetetgeece etgegteeaa teeteetggg acegtgeatt cageeceaaa eegggggeta
ggcaggcgc cttcggacct caccatcagt attaatcaga tgggctcacc gggcatgggg
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cacttgaagt cgcccacct tagccaggtg cactcacccc tggtcacctc gccctctgcc
aacetcaagt caceccagae teectcacag atggtgeeet tgeettetge caaceegeea
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tegeccagea ggetcaagte teettecatg geggtgeett et
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<212> PRT
<213> Homo sapiens
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Gln Gly Phe Ser Gly Gly Gln Gly Pro Tyr Gln Ala Met Ser Gln Asp
                                25
Met Gly Asn Thr Gln Asp Met Phe Ser Pro Asp Gln Ser Ser Met Pro
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Met Ser Asn Val Gly Thr Thr Arg Leu Ser His Met Pro Leu Pro Pro
                        55
Ala Ser Asn Pro Pro Gly Thr Val His Ser Ala Pro Asn Arg Gly Leu
                                                             80
                                         75
Gly Arg Arg Pro Ser Asp Leu Thr Ile Ser Ile Asn Gln Met Gly Ser
                                    90
                85
Pro Gly Met Gly His Leu Lys Ser Pro Thr Leu Ser Gln Val His Ser
                                 105
Pro Leu Val Thr Ser Pro Ser Ala Asn Leu Lys Ser Pro Gln Thr Pro
                                                 125
                             120
        115
Ser Gln Met Val Pro Leu Pro Ser Ala Asn Pro Pro Gly Pro Leu Lys
                        135
                                             140
Ser Pro Gln Val Leu Gly Ser Ser Leu Ser Val Arg Ser Pro Thr Gly
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                                         155
                    150
Ser Pro Ser Arg Leu Lys Ser Pro Ser Met Ala Val Pro Ser
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<212> DNA
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ggeetecace agecegegte caggeegeet gggetegaeg egetggaeag gegeeggegg
120
ctggcgctgc cgcccttttg ccgtttccgc cttttcttgc gcttctggtg cttgctggag
geetgegege eegeetegee tgegetgtee gagteettgg egetgtegga egtgagtgae
tegeagttet geageegeag gteegacteg etetecacea tagetattaa tgeeaagaat
300
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gcaaatgaaa agaatatcat ctgggtgaat taccttctta gcaatcctga gtacaaggac
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ggaagaagtc gggcaacgcg t
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<211> 187
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Ser Ser Arg Gly Gly Leu His Gln Pro Ala Ser Arg Pro Pro Gly Leu
            20
Asp Ala Leu Asp Arg Arg Arg Leu Ala Leu Pro Pro Phe Cys Arg
                            40
Phe Arg Leu Phe Leu Arg Phe Trp Cys Leu Leu Glu Ala Cys Ala Pro
                        55
Ala Ser Pro Ala Leu Ser Glu Ser Leu Ala Leu Ser Asp Val Ser Asp
                                        75
                    70
Ser Gln Phe Cys Ser Arg Arg Ser Asp Ser Leu Ser Thr Ile Ala Ile
                                    90
                85
Asn Ala Lys Asn Ala Asn Glu Lys Asn Ile Ile Trp Val Asn Tyr Leu
                                105
            100
Leu Ser Asn Pro Glu Tyr Lys Asp Thr Pro Met Asp Ile Ala Gln Leu
                                                125
                            120
Pro His Leu Pro Glu Lys Thr Ser Glu Ser Ser Glu Thr Ser Asp Ser
                                            140
                        135
Glu Ser Asp Ser Lys Asp Thr Ser Gly Ile Thr Glu Asp Asn Glu Asn
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                    150
Ser Lys Xaa Pro Thr Arg Arg Gly Thr Ser Pro Arg Thr Ala Lys Thr
Arg Ser Pro Thr Gly Arg Ser Arg Ala Thr Arg
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gteggteega acategaege etggteegat tteeageege tgggegtggt ggeggggate
180
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acgccattca acttcccggc gatggtgccc ctgtggatgt atccgttggc gatcgtttgc
240
ggtaactgct ttatcctcaa gccgtccgag cgtgatccga gctcgacctt gctgatcgcc
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accgcggtgg acgcg
375
<210> 2348
<211> 125
<212> PRT
<213> Homo sapiens
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Ile Ser Glu Glu His Gly Arg Thr Leu Glu Asp Ala Ala Gly Glu Leu
Lys Arg Gly Ile Glu Asn Val Glu Tyr Ala Cys Ala Ala Pro Glu Val
Leu Lys Gly Glu Tyr Ser Arg Asn Val Gly Pro Asn Ile Asp Ala Trp
Ser Asp Phe Gln Pro Leu Gly Val Val Ala Gly Ile Thr Pro Phe Asn
                        55
Phe Pro Ala Met Val Pro Leu Trp Met Tyr Pro Leu Ala Ile Val Cys
                                         75
                    70
Gly Asn Cys Phe Ile Leu Lys Pro Ser Glu Arg Asp Pro Ser Ser Thr
                                     90
                85
Leu Leu Ile Ala Gln Leu Leu Gln Glu Ala Gly Leu Pro Lys Gly Val
                                 105
Leu Asn Val Val His Gly Asp Lys Thr Ala Val Asp Ala
                             120
        115
<210> 2349
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<212> DNA
<213> Homo sapiens
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gctgacaaag tttttggtgt cccaggagat tttaatctag cctttttaga tgatattatt
120
gcacataatc atattaaatg gattggtaat acaaatgaac ttaatgcaag ttatgccgct
180
gacggatatg cacgtattaa tggcatcggt gcaatggtaa caacatttgg agtgggtgaa
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gaaggaactt ttgatgatta tagaaaaatg tttgagccta ttacaacagc gcaagct
417
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Tyr Ser Ala Gly Ala Asp Lys Val Phe Gly Val Pro Gly Asp Phe Asn
                                25
Leu Ala Phe Leu Asp Asp Ile Ile Ala His Asn His Ile Lys Trp Ile
                            40
Gly Asn Thr Asn Glu Leu Asn Ala Ser Tyr Ala Ala Asp Gly Tyr Ala
Arg Ile Asn Gly Ile Gly Ala Met Val Thr Thr Phe Gly Val Gly Glu
                                        75
                    70
Leu Ser Ala Val Asn Gly Ile Ala Gly Ser Tyr Ala Glu Arg Val Pro
                                    90
                85
Val Ile Ala Ile Thr Gly Ala Pro Thr Arg Ala Val Glu Gln Glu Gly
                                105
            100
Lys Tyr Val His His Ser Leu Gly Glu Gly Thr Phe Asp Asp Tyr Arg
                                                 125
                            120
        115
Lys Met Phe Glu Pro Ile Thr Thr Ala Gln Ala
                        135
    130
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gacgtcatcc acgctggcca cctaggcggt atgcccccga tgcccgacct gaatgccgag
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696
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                                25
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Asp Gln Tyr Asp Arg Phe Val Arg Gly Asn Thr Val Leu Ala Gln Pro
                            40
Asn Asp Ala Gly Met Ile Arg Ile Asp Asp Asn Leu Gly Ile Ala Leu
                        55
Ser Leu Asp Ala Asn Gly Arg Gln Thr Thr Leu Asn Pro Tyr Leu Gly
                                        75
Ala Gln Leu Ala Leu Cys Glu Ala Tyr Arg Asn Val Ala Val Ser Gly
Ala Thr Pro Val Ala Val Thr Asp Cys Leu Asn Tyr Gly Ser Pro Tyr
                                105
Asp Pro Asp Val Met Trp Gln Phe Asp Glu Thr Ile Leu Gly Leu Val
                            120
        115
Asp Gly Cys Arg Glu Leu Gly Val Pro Val Thr Gly Gly Asn Val Ser
                        135
Leu His Asn Arg Thr Gly Asp Glu Ser Ile Arg Pro Thr Pro Leu Val
                                        155
                    150
Gly Val Leu Gly Val Ile Asp Asp Val His Arg Arg Ile Pro Ser Ala
                                    170
                165
Phe Ala His Asp Gly Asp Ala Val Leu Leu Gly Thr Thr Lys Cys
                                185
Glu Phe Gly Gly Ser Val Tyr Glu Asp Val Ile His Ala Gly His Leu
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Gly Gly Met Pro Pro Met Pro Asp Leu Asn Ala Glu Lys Ala Leu Ala
                        215
Ala Val Met Val Glu Ala Ser Lys
225
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<210> 2353
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300
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422
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<212> PRT
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Lys Val Val Pro Ile Ser Gly Asp Val Ser Asp Phe Ala Asp Ala Lys
                                25
Arg Met Val Asp Gln Ala Ile Thr Glu Leu Gly Ser Val Asp Val Leu
                            40
Val Asn Asn Ala Gly Ile Thr Gln Asp Thr Leu Met Leu Lys Met Thr
                                            60
Glu Glu Asp Phe Glu Lys Val Ile Lys Ile Asn Leu Thr Gly Ala Phe
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Asn Met Thr Gln Ala Val Leu Lys Gln Met Ile Lys Ala Arg Glu Gly
                                    90
                85
Ala Ile Ile Asn Met Ser Ser Val Val Gly Leu Met Gly Asn Ile Gly
                                105
Gln Ala Asn Tyr Ala Ala Ser Lys Ala Gly Leu Ile Gly Phe Thr Lys
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Ser Val Ala Arg Glu Val Ala Asn Arg Asn Val Arg
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480
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3780					

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cttggtctgg atgggacact gtcagagttt ggccacagcc tgtcctttac ttcatccaca
cctatgaagc tattccctaa ataaggcatt tcccaagtta gtcgctacct aatcagcctt
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1	_	_	<b>5</b> 1	5	C1	Thr	Leu	Tvr		Lvs	Glu	Asn	Lvs	Phe	Pro
Leu	Asp	Lys		Ser	Gry	IIII	Leu	25		2,2			30		
			20			T	Leu		Glv	Cvs	Val	Leu		Asn	Thr
Leu	Ser		Gln	Asn	met	Leu	40	Arg	Gry	Cys		45	5		
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Glu	Trp	Cys	Phe	Gly	Leu		Ile	Pne	Ala	Gry	60	Yab	****	_,_	
	50					55		D1	T	N		Car	Tla	Δen	Ara
Met	Gln	Asn	Ser	Gly		Thr	Lys	Pne	гус	Arg	LIIL	261	110	raħ.	80
65					70		_	-1-	n	75	Dho	T ON	Va l	Cvs	
Leu	Met	Asn	Thr		Val	Leu	Trp	IIe	hue	GIY	Pne	Leu	Val	95	
				85	_				90		C1	uic	Glu		Glv
Gly	Val	Ile	Leu	Ala	Ile	Gly	Asn	Ala	ITE	irp	Giu	nrs	110	VAI	O <sub>1</sub>
			100					105		<b>a</b> 1	7 J -	17-1		Sar	בומ
Met	Arg	Phe	Gln	Val	Tyr	Leu	Pro	Trp	Asp	GIU	Ala	vai	ASP	361	AIG
		115					120					125			
Phe	Phe	Ser	Gly	Phe	Leu	Ser	Phe	Trp	ser	Tyr	116	116	IIe	Den	Valt
	120					135					140				
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145					150					122					100
Gly	His	Ser	Tyr	Phe	Ile	Asn	Trp	Asp	Lys	Lys	мес	Pne	cys	175	Lys
				165					170					1/5	
Lys	Arg	Thr	Pro	Ala	Glu	Ala	Arg	Thr	Thr	Thr	Leu	Asn	GIU	GIU	Leu
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Gly	Gln	Val	Glu	Tyr	Ile	Phe	Ser	Asp	Lys	Thr	Gly	Thr	Leu	Thr	GIII
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225					230					235					240
Glu	Pro	Val	Asp	Phe	Ser	Phe	. Asn	Pro	Leu	Ala	Asp	Lys	Lys	Pne	Leu
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Phe	Trp	Asp	Pro	Ser	Leu	Let	ı Glu	Ala	Val	Lys	Ile	Gly	Asp	Pro	His
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Thr	His	Glu	Phe	Phe	Arg	Leu	ı Leu	Ser	Lei	ı Cys	His	Thr	· Val	Met	Ser
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	290					295	5				300	}			
Glu	Gly	Ala	Leu	Val	Thr	Ala	a Ala	Arg	J Asi	n Phe	: Gly	, Phe	e Val	. Phe	Arg
205	•				310	)				315	•				320
Ser	Arc	Thr	Pro	Lys	Thr	· Ile	e Thr	· Val	L His	s Glu	ı Met	: Gl	Thr	Ala	Ile
				325	;				331	ט				,,,,	
Thi	TVI	Glr	. Leu	Leu	Ala	ılle	e Leu	ı Ası	Phe	e Asr	ı Asr	ı Ile	e Arg	, Lys	Arg
			340	١				345	5				224	,	
Met	: Sei	val	l Ile	. Val	Arc	ASI	n Pro	Glı	ı Gl	y Lys	s Ile	a Arg	g Lev	ı Tyr	Cys
		355	•				360	)				20:	•		
LVS	s Glv	/ Ala	a Ast	Thi	: Ile	e Le	u Lei	ı Ası	o Ar	g Lei	ı His	s His	s Sei	: Thr	Gln
	270	<b>1</b>				37	5				381	J			
راي دان	1 T.AI	1 [.e1	ı Asr	ı Thi	Thi	Me	t Ası	o Hi	s Le	u Ası	n Glu	ı Ty:	r Ala	a Gly	Glu 400
201	=				390	)				39:	>				400
رور دائ	י ע ד.בו	1 Arc	ילד ב	Lei	ı Va	Le	u Ala	а Ту	r Ly	s As	p Le	ı Ası	p Gl	ı Glu	ı Tyr
				400					41	U				41.	,
m	- داء	ر1ء ،	, ጥጥ	Ala	Gli	ı Ar	g Ar	g Le	u Gl	n Al	a Se	r Le	u Ala	a Glr	a Asp
ту	r GT	الدى ب					د								

			420					425					430		
Ser A	ra	Glu	420 Asp	Arq	Leu	Ala	Ser	Ile	Tyr	Glu	Glu	Val	Glu	Asn	Asn
							440					773			
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4 Val F	50	<b>~1</b>	Thr	Tla	Δla	455 Leu	Leu	Thr	Leu	Ala		Ile	Lys	Ile	Trp
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465 Val I	Leu	Thr	Gly	Asp	Lys	Gln	Glu	Thr	Ala	Val	Asn	Ile	Gly	Tyr 495	Ser
				400					490						
Cys I			E 0 0					505							
His 7	rhr	Val	Leu	Glu	Val	Arg	Glu	Glu	Xaa	Gln	Glu	Ser	Pro	Gly	Glu
							520					222			
Asp A	Asp	Gly	Leu	Ile	Xaa	Arg	Ser	Val	Gly	Asn	540	PHE	1111	TYL	02
Asp 1	530		50*	Car	Ser	535 Lvs	Leu	Thr	Ser	Val		Glu	Ala	Val	Ala
					550					222					
Gly (	Glu	Tyr	Ala	Leu	Val	Ile	Asn	Gly	His	Ser	Leu	Ala	His	Ala 575	Leu
				E 6 E					5/0						
Glu .								~ > ~					220		
Ala	Val	Ile	Cvs	Cys	Arg	Val	Thr	Pro	Leu	Gln	Lys	Ala	Gln	Val	Val
							600					~~~			
		Val	Lys	Lys	Tyr	Lys 615	Lys	Ala	Val	Thr	ьеи 620	ALA	116	Gly	Asp
<b>61</b>	610	7.55	λετ	. Val	Ser	615 Met	Ile	Lys	Thr	Ala			Gly	. Val	Gly 640
					<i>4</i> 20					ວວວ	;				
Ile	Ser	Gly	, Glr	ı Glu	Gly	Ile	Gln	Ala	Val	Leu	. Ala	Ser	Asp	655	Ser
		_ •	<b>5</b> 1.	645	, nha	LOV	. Gln	Ara	650 T.e.	ı Lev	. Leu	val	His		Arg
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Trp	Ser	Туз	Lei	ı Arç	g Met	Cys	Lys	Phe	Lev	ı Cys	Tyr	Phe	Phe	YY	Lys
			_				680					003			
						201					, , ,	,			Gly
Dhe	690 Ser	· - Alá	a Gl	n Thi	r Val	L Ty	Asp	Glr	ту:	r Phe	e Ile	e Thr	: Le	יעד ג	Asn 720
					711	`				/1:	,				
Ile	۷al	Ty	r Th			ı Pro	o Val	. Lei	1 Ala 73	a Mei	E GI	y val	LPIR	73!	o Gln 5
	17-3	. n-	o G1	72 Gl:	5 n Are	s Sei	r Met	: Glu	, Ту:	r Pro	o Lys	s Lei	ту:	r Gl	u Pro
			71	^				/4:						•	
Gly	Glr	ı Le	u As	n Le	u Le	u Pho	e Asr	ı Lys	s Ar	g Gl	u Pho	e Phe 76!	≥ Il·	е Су	s Ile
		~ ~	_				760	1				,	-		r Gly
		_				77	5				, 0	U			
Val	Phe	e Al	a As	p Al	a Th	r Ar	g Ası	As	p Gl	y Th	r Gl	n Lei	u Al	a As	p Tyr 800
					79	n				/9	_				
Gln	Se	r Ph	e Al	a Va	1 Th	r Va	l Ala	a Th	r Se 81	r Le	u va	T TT	e va	81	l Ser 5
	<b>C1</b>	_ +1	ري ۾	80 v t.e	) 11 Δ=	<sub>ው</sub> ፕኮ	r Gl	v Tv	r Tr	o O Th	r Al	a Il	e As	n Hi	s Phe
			0 1	) A				82	<b>5</b>					-	
Phe	ıı	e Tr	p G	ly Se	r Le	u Al	a Va	1 Ty	r Ph	e Al	a Il	e Le	u Ph	e Al	a Met
			_				N A	(1					_		
His	Se	r As	n G	ly Le	eu Ph	e As	рме	נ את	e PI	UAS				_	e Val

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855
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Gly Asn Ala Gln Asn Thr Leu Ala Gln Pro Thr Val Trp Leu Thr Ile
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Gln Leu Val Arg Lys Lys Gln Lys Ala Gln His Arg Cys Met Arg Arg
                                                 925
                            920
Val Gly Arg Thr Gly Ser Arg Arg Ser Gly Tyr Ala Phe Ser His Gln
Glu Gly Phe Gly Glu Leu Ile Met Ser Gly Lys Asn Met Arg Leu Ser
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                                        955
Ser Leu Ala Leu Ser Ser Phe Thr Thr Arg Ser Ser Ser Ser Trp Ile
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Asn Glu Thr Gly Gly Thr Lys Val Ile Thr Ala Leu Phe Ala Gly Leu
                            40
Val Tyr Tyr Asp Ala Asp Gly Lys Thr His Asn Asp Val Ala Lys Ser
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60
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Ile Asp Phe Asp Gly Asp Arg Thr Tyr Thr Val Thr Leu Arg Lys Thr
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Gly Leu Val Ile Glu Phe Gln Gln Thr Asn His Glu Gly Gln Met Ile
                             40
Glu Trp Ile His His Ala Arg Arg Ile Ala Gly Ile Val Ile Asn
                         55
Pro Gly Ala Trp Thr His Thr Ser Ala Ala Ile His Asp Ala Leu Ile
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Ala Ala Glu Val Pro Val Ile Glu Val His Ile Ser Asn Val His Arg
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 Arg Glu Asp Phe Arg His Phe Ser Tyr Val Ser Arg
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                                 25
Arg Trp Trp Gly Trp Gly Leu Gln Gln Leu Gly Pro Leu Ile Ser Leu
                             40
Lys Ala Gln Gln His Thr Val Ser Gln Val Cys Gln Val Pro Gln His
                                             60
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Gly His Pro Ala Leu Thr Ala Pro Pro Arg Leu Pro Ala Cys His His
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 teettteeca cetteteaga aetttetgtt teeatggeet eetetgeeae etetgeeaee
tecectgatg tgetggeete egttteeate getteeteat ggegttette egeceggtgt
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 360
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ggcccctgct gtggtgctag gtccccagat gagagatcac ggtcatgaag atcagccccc
420
aaggeageee etteenttee ageetggget etggegtgtt etaggtgete aetteeatgg
480
ctggcctgct cacagagccc tacctcagcc tgtggtaagc gcacctgctc ggccctggtg
ctctatgatg agccaccagt cagttctgca gatgtgtccc cgagctcctg ccgagggacg
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Ser Leu Pro Pro Ser Ser Glu Val Ser Phe Pro Thr Phe Ser Glu Leu
                             40
Ser Val Ser Met Ala Ser Ser Ala Thr Ser Ala Thr Ser Pro Asp Val
                                             60
                        55
Leu Ala Ser Val Ser Ile Ala Ser Ser Trp Arg Ser Ser Ala Arg Cys
                                                             80
                                         75
                    70
Ser Lys Pro Thr Ala Xaa Arg Ser Lys Arg Asp Cys Val Thr Thr Gln
                                     90
Lys Val Ala Gln Gly Leu Ala Ala Val Pro Ser Gly Ser Leu Cys Ala
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Gln Pro Pro Ser Ala Gly Phe Pro Gly Pro Cys Cys Gly Ala Arg Ser
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ggtgcttgcc ctggcatgaa cgccccaggg gaggtcgacg ccgtcgggat tctcacaccg
180
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atggtgatgg gactcggttt ccaaccacgg ttccatgtga cccagacagt tctggttggc
cccgageteg atgeetegte egegacaeag accategage caecteatgt ceteegeegt
cacggggctg cggtcggccc acacctcctc ctcaccgcgg taggcaaatc ccgcttcacc
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Thr Ala Glu Asp Met Arg Trp Leu Asp Gly Leu Cys Arg Gly Arg Gly
                            40
                                                 45
Ile Glu Leu Gly Ala Asn Gln Asn Cys Leu Gly His Met Glu Pro Trp
                        55
Leu Glu Thr Glu Ser His His Arq Cys Glu Asn Pro Asp Gly Val
                                        75
Asp Leu Pro Trp Gly Val His Ala Arg Ala Ser Thr Leu Ala Pro Val
                85
                                    90
Pro Glu Asn Leu Asp Phe Val Gln Arg Leu Leu Gly Glu Leu Thr Glu
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Thr Val Ser Ser Lys Phe Leu Asn Val Gly Leu Asp Glu Pro Trp Glu
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Leu Gly Thr Gly
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tacgateggt geteeggtga eteegegeac gacgaceagg tegeetegtt cacegegatg
egtgaegeaa teegateeae eggaegeeee atggtgtaca geateaaeee caacagegaa
tegeeggate ggteeggage ceaattegat tggggeggtg tggcaaccat gacacgtace
accaacgaca totogooggt gtggaccact cggccggccg gtgccgatgc gacaccggca
360
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                                 25
Ser Trp Gly Val Asp Phe Val Lys Tyr Asp Arg Cys Ser Gly Asp Ser
                            40
        35
Ala His Asp Asp Gln Val Ala Ser Phe Thr Ala Met Arg Asp Ala Ile
                                             60
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Arg Ser Thr Gly Arg Pro Met Val Tyr Ser Ile Asn Pro Asn Ser Glu
                                         75
                    70
65
Ser Pro Asp Arg Ser Gly Ala Gln Phe Asp Trp Gly Gly Val Ala Thr
                                     90
                85
Met Thr Arg Thr Thr Asn Asp Ile Ser Pro Val Trp Thr Thr Arg Pro
                                 105
            100
Ala Gly Ala Asp Ala Thr Pro Ala Ser Gly Tyr Gln Gly Ile Arg Asp
                             120
Ile Ile Asp Ala Val Ala Pro Ile Gly Ala Arg Val Ala Thr Ala Ala
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Ser Ser Thr Trp Thr Cys Ser Ser Ser Val Ser Ala Thr Arg
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cccgaaagga agagggggcc accaagaagg ctcccagccg actcccactg cctcccagct
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1727

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Thr Ser Ser Ile Pro Val Gln Glu Ala Gln Glu Ala Pro Glu Arg Lys
Arg Gly Pro Pro Arg Arg Leu Pro Ala Asp Ser His Cys Leu Pro Ala
                    70
Ser Thr Ser Ala Pro Pro Pro Arg Ser Thr Gln Thr Gly Pro Pro Ser
                85
                                    90
Xaa Asp Cys Pro Gly Glu Leu Lys Ala Thr Ala Pro Ala Ser Pro Arg
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           100
Leu Gly Gln Ser Gln Ser Gln Ala Asp Glu Arg Ala Gly Thr Pro Pro
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Pro Ala Pro Pro Leu Pro Pro Pro
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ggcaggcact agtcatgagg caagagatgc ctcagaagag gatgctggcc gcagggcaca
gcagagaggg agatagcccg gggcactcct caggaccggg cctcagggga cagcaaacaa
gattectgat agacgegece aggteatgee ttttcagtgg tgtgagecag gttctggegt
caggeggee aaggttttea tgeagen
327
<210> 2372
<211> 104
<212> PRT
<213> Homo sapiens
<400> 2372
Met Arg Ala Cys Ser Leu Gly Ala Glu Thr Arg Ser Lys Gly Glu Glu
                                    10
Arg Val Ala Arg Ala Pro Ser Tyr Ser Trp Ser Cys Arg Gly Pro Ile
                                25
                                                    30
Pro Arg Glu Arg Gln Ala Leu Val Met Arg Gln Glu Met Pro Gln Lys
```

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40
        35
Arg Met Leu Ala Ala Gly His Ser Arg Glu Gly Asp Ser Pro Gly His
Ser Ser Gly Pro Gly Leu Arg Gly Gln Gln Thr Arg Phe Leu Ile Asp
                    70
Ala Pro Arg Ser Cys Leu Phé Ser Gly Val Ser Gln Val Leu Ala Ser
                                    90
                85
Gly Gly Pro Arg Phe Ser Cys Ser
            100
<210> 2373
<211> 591
<212> DNA
<213> Homo sapiens
<400> 2373
gaattctgac attcaggaag tcaattgcag aaggtttaac caagttgatt ctgttttacc
aaatcctgtc tattctgaaa agcggccaat gccagactca tctcatgatg tgaaagttct
cacticaaag acatcagetg tigagatgac ceaggeagta tigaataete agetticate
agaaaatgtt accaaagttg agcaaaattc accagcagtt tgtgaaacaa tttctgttcc
caagtccatg tccactgagg aatataaatc aaaaattcaa aatgaaaata tgctacttct
cgctttgctt tcacaggcac gtaagactca gaagacagta ttaaaagatg ctaatcaaac
tattcaggat tctaaaccag acagttgtga aatgaatcca aatacccaaa tgactggtaa
ccaactgaat ttgaagaaca tggaaactcc aagtacttct aatgtaagtg gcagggtttt
ggacaactcc ttttgcagtg gacaagaatc ctcaacaaaa ggaatgcctg ctaaaagtga
cagtagetgt tecatggaag tgctageaac etgtetttee etgtggaaaa a
591
<210> 2374
<211> 167
<212> PRT
<213> Homo sapiens
<400> 2374
Met Pro Asp Ser Ser His Asp Val Lys Val Leu Thr Ser Lys Thr Ser
Ala Val Glu Met Thr Gln Ala Val Leu Asn Thr Gln Leu Ser Ser Glu
Asn Val Thr Lys Val Glu Gln Asn Ser Pro Ala Val Cys Glu Thr Ile
Ser Val Pro Lys Ser Met Ser Thr Glu Glu Tyr Lys Ser Lys Ile Gln
Asn Glu Asn Met Leu Leu Leu Ala Leu Leu Ser Gln Ala Arg Lys Thr
Gln Lys Thr Val Leu Lys Asp Ala Asn Gln Thr Ile Gln Asp Ser Lys
```

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90
                85
Pro Asp Ser Cys Glu Met Asn Pro Asn Thr Gln Met Thr Gly Asn Gln
                                105
Leu Asn Leu Lys Asn Met Glu Thr Pro Ser Thr Ser Asn Val Ser Gly
                            120
        115
Arg Val Leu Asp Asn Ser Phe Cys Ser Gly Gln Glu Ser Ser Thr Lys
                        135
Gly Met Pro Ala Lys Ser Asp Ser Ser Cys Ser Met Glu Val Leu Ala
                                        155
145
Thr Cys Leu Ser Leu Trp Lys
                165
<210> 2375
<211> 535
<212> DNA
<213> Homo sapiens
<400> 2375
ntggccatgt cgttgctcag cagcggcacc ctggacagtt accttgagcg tcacaaacaa
ctggacgcga tgcgcatgct gcacttcttc gccctcgacg aagaaaaccc cgccagcatc
tataactgee tgegegeege geggggeaat geecaegegg taegegggeg gateaeegee
gacatgtggg aaaacctcaa cgccacctgg ctggaaatgc gcagcatcgc cgccgggggc
ctggcccggc atggcatcag ccacttctgt gactgggtca agcagcgttc gcacctgttc
cgcggggcaa cctcgggcac catcatgcgc aacgacgctt accggtttat tcgcctgggc
360
acgtttgtcg agcgcgcgga caacaccctg cgcctgctgg atgcgcgcta cgaaatgttt
ggtgaggagt cggaagaggt cagcgacctg tcggcacgcg ggtattacca gtggagcgcc
ctgctgcggg ccttgtcgtc attcgaggcg tataccgaac tgtaccccaa cgcgt
535
<210> 2376
<211> 178
<212> PRT
<213> Homo sapiens
<400> 2376
Xaa Ala Met Ser Leu Leu Ser Ser Gly Thr Leu Asp Ser Tyr Leu Glu
 1
Arg His Lys Gln Leu Asp Ala Met Arg Met Leu His Phe Phe Ala Leu
                                 25
Asp Glu Glu Asn Pro Ala Ser Ile Tyr Asn Cys Leu Arg Ala Ala Arg
                             40
Gly Asn Ala His Ala Val Arg Gly Arg Ile Thr Ala Asp Met Trp Glu
Asn Leu Asn Ala Thr Trp Leu Glu Met Arg Ser Ile Ala Ala Gly Gly
                                         75
                     70
Leu Ala Arg His Gly Ile Ser His Phe Cys Asp Trp Val Lys Gln Arg
```

```
85
Ser His Leu Phe Arg Gly Ala Thr Ser Gly Thr Ile Met Arg Asn Asp
                                105
Ala Tyr Arg Phe Ile Arg Leu Gly Thr Phe Val Glu Arg Ala Asp Asn
                            120
Thr Leu Arg Leu Leu Asp Ala Arg Tyr Glu Met Phe Gly Glu Glu Ser
Glu Glu Val Ser Asp Leu Ser Ala Arg Gly Tyr Tyr Gln Trp Ser Ala
                                         155
                    150
Leu Leu Arg Ala Leu Ser Ser Phe Glu Ala Tyr Thr Glu Leu Tyr Pro
                                     170
                165
Asn Ala
<210> 2377
<211> 622
<212> DNA
<213> Homo sapiens
<400> 2377
acgcgtgaag ggttgaggct tcagaagtgg tagggaagaa cagaagctcc cttctgaggg
agcacccagg agatgaaagg aaccaatcct gggtggtcct gcaccaggct tatcaacccc
tgacagacaa atggaaaact tctgtgatgg tgggacatga aaaaatattt cacccttctg
ataaaatgga accagcagat agaagtagga atttttctgt taggtgaaat gtttttaaaa
atatgtatac aggaaaaagc ataaaacagt attgactggc aaacatagaa ctggaatgta
aatataatgt tetttgeeet gaatgattta agtggeatga taaaaeteat geeacagaet
gggtaagaca aggaatctaa tccactctaa aaagaagaaa agcatagtaa aattctcctt
agagttagaa ttattaatag ttcctatcta ctatttaatt taatcatagt taatgatgag
aatttettaa atttaaaget tetgatgatg etaaatgtge attteteatg atteettaaa
 acaatttttg taaattctat tootaggaco ttotgottto agaaaaatta atgtottgta
 ttettegtat tggaggagat et
 622
 <210> 2378
 <211> 109
 <212> PRT
 <213> Homo sapiens
 <400> 2378
 Met Ser Phe Ile Met Pro Leu Lys Ser Phe Arg Ala Lys Asn Ile Ile
                                      10
 Phe Thr Phe Gln Phe Tyr Val Cys Gln Ser Ile Leu Phe Tyr Ala Phe
                                  25
 Ser Cys Ile His Ile Phe Lys Asn Ile Ser Pro Asn Arg Lys Ile Pro
```

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40
Thr Ser Ile Cys Trp Phe His Phe Ile Arg Arg Val Lys Tyr Phe Phe
                        55
Met Ser His His Arg Ser Phe Pro Phe Val Cys Gln Gly Leu Ile
                    70
                                         75
Ser Leu Val Gln Asp His Pro Gly Leu Val Pro Phe Ile Ser Trp Val
Leu Pro Gln Lys Gly Ala Ser Val Leu Pro Tyr His Phe
            100
<210> 2379
<211> 342
<212> DNA
<213> Homo sapiens
<400> 2379
tcatgacctg gagacttcgg aaactcaaca agactgcagg gcacccaggg gcaccagccc
cggtcaccgc agaggatcag tgcactttgc catctggcag atcaactcat ggcacaactq
ggaaacataa cattcacgct tqtqaaccqa qacqccatac cccaqcqqtq ccqaqaqcaa
cagtgctgtg caggtctggg cagatgaggg cctccaggac acgaggactc actcgctcac
cetgeecact gggeagetge tegecactee ceteetggag ggeaggaegg acaceacaea
cacacacaag cagggaaget qtqcaqcaqt qqqqaqaaaq ca
<210> 2380
<211> 113
<212> PRT
<213> Homo sapiens
<400> 2380
Met Thr Trp Arg Leu Arg Lys Leu Asn Lys Thr Ala Gly His Pro Gly
Ala Pro Ala Pro Val Thr Ala Glu Asp Gln Cys Thr Leu Pro Ser Gly
                                25
Arg Ser Thr His Gly Thr Thr Gly Lys His Asn Ile His Ala Cys Glu
Pro Arg Arg His Thr Pro Ala Val Pro Arg Ala Thr Val Leu Cys Arg
                        55
Ser Gly Gln Met Arg Ala Ser Arg Thr Arg Gly Leu Thr Arg Ser Pro
                                        75
Cys Pro Leu Gly Ser Cys Ser Pro Leu Pro Ser Trp Arg Ala Gly Arg
                85
                                    90
Thr Pro His Thr His Thr Ser Arg Glu Ala Val Gln Gln Trp Gly Glu
                                105
Ser
<210> 2381
<211> 434
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<212> DNA
<213> Homo sapiens
<400> 2381
gtgcaccetg gccatatgga cgccagegae gtcggcgtct tgcgtgacgt ggaaccgate
ggcccaagta gagagatgga ttttgaatgg tgacgatgta cccgccgcag caagtggatg
cegtectett tgacatggac ggaaccetge teaacaccet geeggeetgg tgegtggeat
ctgagcatct gtggggcact tctctggctg acgctgacag cgccaaggtt gacgggggca
cegtegacga egtegttgag etgtatetge gagaccacce teaggeagat ecceaggeea
ccatcgagcg tttcatggac atccttgacg ccaacctggc tggccacacc gagccgatgc
ceggagetga cegeetegtg aagaggetgt caggteatgt acceateget gtggtgtega
420
atteceegae gegt
434
<210> 2382
<211> 116
<212> PRT
<213> Homo sapiens
<400> 2382
Met Val Thr Met Tyr Pro Pro Gln Gln Val Asp Ala Val Leu Phe Asp
                                     10
                 5
Met Asp Gly Thr Leu Leu Asn Thr Leu Pro Ala Trp Cys Val Ala Ser
Glu His Leu Trp Gly Thr Ser Leu Ala Asp Ala Asp Ser Ala Lys Val
                             40
Asp Gly Gly Thr Val Asp Asp Val Val Glu Leu Tyr Leu Arg Asp His
                                             60
Pro Gln Ala Asp Pro Gln Ala Thr Ile Glu Arg Phe Met Asp Ile Leu
                     70
Asp Ala Asn Leu Ala Gly His Thr Glu Pro Met Pro Gly Ala Asp Arg
                                     90
Leu Val Lys Arg Leu Ser Gly His Val Pro Ile Ala Val Val Ser Asn
                                                      110
                                 105
            100
Ser Pro Thr Arg
        115
 <210> 2383
 <211> 393
 <212> DNA
 <213> Homo sapiens
 <400> 2383
acgcgtgcgt tcagatgagc gccggacgaa actcctcggt cgcttcggca ggcatggatt
 catgteggea egggeetttg aacaggateg cegtegegtg getateegee gegggtgggg
 120
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caqaaaacqc ccactetece ttecccagge geeggeegte gagtegteta egeaacgcae
180
gtctacatag gtgacttttt cataccccca ctttcgtact cggatgggct cggcgtgctc
240
gatgtcggca cgaaaaatta aatgcactga atgcgggttg tcgcacagga tgcatctcgt
300
ctttcttgat gccacccacc ttgttacata ttctgccatg caaaacacct tgtgattttt
ggcggagtgc aacatggtat gtgtatgcca ctg
<210> 2384
<211> 125
<212> PRT
<213> Homo sapiens
<400> 2384
Met Leu His Ser Ala Lys Asn His Lys Val Phe Cys Met Ala Glu Tyr
                                    10
Val Thr Arg Trp Val Ala Ser Arg Lys Thr Arg Cys Ile Leu Cys Asp
            20
Asn Pro His Ser Val His Leu Ile Phe Arg Ala Asp Ile Glu His Ala
                            40
Glu Pro Ile Arg Val Arg Lys Trp Gly Tyr Glu Lys Val Thr Tyr Val
Asp Val Arg Cys Val Asp Asp Ser Thr Ala Gly Ala Trp Gly Arg Glu
Ser Gly Arg Phe Leu Pro His Pro Arg Arg Ile Ala Thr Arg Arg Arg
                                    90
Ser Cys Ser Lys Ala Arg Ala Asp Met Asn Pro Cys Leu Pro Lys Arg
                                105
            100
Pro Arg Ser Phe Val Arg Arg Ser Ser Glu Arg Thr Arg
                                                125
        115
                            120
<210> 2385
<211> 347
<212> DNA
<213> Homo sapiens
<400> 2385
acgcgttccc aaagtaggat ggctgggata gagggaaagg acatctttca ggcttgttat
gcactgtgct gtggactctt gttgtggggt cctaggtctg cccagcattt tggggttcac
cccqtqaccc tctacgggtt tccatgcccc cagcaccacg tccatcatca tttctggggt
cocctcacct caqaqaqcct qcttcctatg actgcgtggg ccagctggag aaggacgacc
caagacccct caagtttctg tgtcctgacc ccaagcatag gcctgagtgc tcctggggcc
300
caagggcctt tacgcactac tctctggggc ccactgtctg cactctt
347
<210> 2386
```

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<211> 109
<212> PRT
<213> Homo sapiens
<400> 2386
Met Ala Gly Ile Glu Gly Lys Asp Ile Phe Gln Ala Cys Tyr Ala Leu
Cys Cys Gly Leu Leu Trp Gly Pro Arg Ser Ala Gln His Phe Gly
                                25
Val His Pro Val Thr Leu Tyr Gly Phe Pro Cys Pro Gln His His Val
                            40
His His His Phe Trp Gly Pro Leu Thr Ser Glu Ser Leu Leu Pro Met
                        55
Thr Ala Trp Ala Ser Trp Arg Arg Thr Thr Gln Asp Pro Ser Ser Phe
                    70
                                        75
Cys Val Leu Thr Pro Ser Ile Gly Leu Ser Ala Pro Gly Ala Gln Gly
                                    90
Pro Leu Arg Thr Thr Leu Trp Gly Pro Leu Ser Ala Leu
            100
<210> 2387
<211> 715
<212> DNA
<213> Homo sapiens
<400> 2387
neggeegeae tteacettae ggaggggaga taatgagate aattagagge geegteaeeg
cgccggagac agctgccgcc gcatagtaat cacccgcggg ctgggtgcgc gggggctccc
cgctacctgc gcgcctgctg ctcccaccac gcggcaccga cccgggcgcg cccccggccc
ctgtccgcag cccacagcca caccgcgcac cctacaccct ccttgcgcct ctgctgggga
geteacece tecactegea cagtgegetg eggecegggg tgtgggaggt eeegggaett
gggttgtgag tgcctgtgtg ggggtagggg caggtgtccg cttgtgcgca tatgggcatg
agtgtacatg gcgtgtgcct ggagatgggc gagtgcaggc tggaatgtgc cggcgtggca
420
cgtgtgtggg cccaaataga tgcgtgtgtg atcacatgtt gtgttcgtgt ttgcacctcg
tgtgcctgtg tgtccgtatt tgagtgctta caggaatgtg ggtggtgagt acccgtatgt
gggtgcatct gcacttgtgc gtgtgtgtgt gtaggcgcgt gtgtgtgcgt gtgtgtgtta
ngggatacgt gtagatgtgc attagtgtga ctgtgtgtgc tcatgtgcct gtgcacgtgt
660
gtttgaggtt tgtgtgcatg ggtagcgtct gtgagagcca tgtgtatatc tgcag
715
<210> 2388
<211> 58
<212> PRT
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<213> Homo sapiens
<400> 2388
Met Gly Met Ser Val His Gly Val Cys Leu Glu Met Gly Glu Cys Arg
Leu Glu Cys Ala Gly Val Ala Arg Val Trp Ala Gln Ile Asp Ala Cys
Val Ile Thr Cys Cys Val Arg Val Cys Thr Ser Cys Ala Cys Val Ser
Val Phe Glu Cys Leu Gln Glu Cys Gly Trp
<210> 2389
<211> 336
<212> DNA
<213> Homo sapiens
<400> 2389
ntcaccetge egeeggaagg ttgetegtac egeatggeea tegteaceat gaagaagteg
tatccgggcc acgccaagcg cgtcatgttg ggtgtctggt cgtttttgcg acagttcatg
tataccaagt togttatogt caccgacgac gatatcaacg cocgegactg gaacgacgtg
atctgggcca tcaccacgcg catggacccc aagcgcgaca cggtgatgat cgataacacg
ccgatcgact acctcgactt cgcctcgccg gtgtccggcc tgggttcgaa gatggggctc
gateceaege acaaatggee eggeeaeaee accegn
336
<210> 2390
<211> 112
<212> PRT
<213> Homo sapiens
<400> 2390
Xaa Thr Leu Pro Pro Glu Gly Cys Ser Tyr Arg Met Ala Ile Val Thr
Met Lys Lys Ser Tyr Pro Gly His Ala Lys Arg Val Met Leu Gly Val
                                 25
Trp Ser Phe Leu Arg Gln Phe Met Tyr Thr Lys Phe Val Ile Val Thr
                                                 45
Asp Asp Asp Ile Asn Ala Arg Asp Trp Asn Asp Val Ile Trp Ala Ile
                         55
Thr Thr Arg Met Asp Pro Lys Arg Asp Thr Val Met Ile Asp Asn Thr
                                         75
Pro Ile Asp Tyr Leu Asp Phe Ala Ser Pro Val Ser Gly Leu Gly Ser
                                     90
                 85
Lys Met Gly Leu Asp Pro Thr His Lys Trp Pro Gly His Thr Thr Arg
                                 105
<210> 2391
<211> 388
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<212> DNA
<213> Homo sapiens
<400> 2391
gtcgactaac ctgcgtacag ccgccaccet acgtttagtc gcgaagcgtg tcggctccat
gttcattccg gagctacacc atgaataaag tactacctga tccacccatc gatcccgcaa
120
aagaccgcgt cgctttcaac cgcgccatcg accattacct gcctacccag ggcttccact
gegtcaacga agacetgagt ttegaagaeg ceetgeteta caeegeeage etgetegaea
gtgcctctgc cacggcgctg gattgcggtg agctgctgca aagccctgaa cgggcgaaga
teetggeegt gtggeatttg etggaaattg caaaaaceae egtagatege tteeceateg
agtgcctgac cgcaccaaag ccctgcct
388
<210> 2392
<211> 102
<212> PRT
<213> Homo sapiens
<400> 2392
Met Asn Lys Val Leu Pro Asp Pro Pro Ile Asp Pro Ala Lys Asp Arg
                                     10
                 5
Val Ala Phe Asn Arg Ala Ile Asp His Tyr Leu Pro Thr Gln Gly Phe
His Cys Val Asn Glu Asp Leu Ser Phe Glu Asp Ala Leu Leu Tyr Thr
                            40
Ala Ser Leu Leu Asp Ser Ala Ser Ala Thr Ala Leu Asp Cys Gly Glu
Leu Leu Gln Ser Pro Glu Arg Ala Lys Ile Leu Ala Val Trp His Leu
                    70
Leu Glu Ile Ala Lys Thr Thr Val Asp Arg Phe Pro Ile Glu Cys Leu
                                     90
                85
Thr Ala Pro Lys Pro Cys
            100
<210> 2393
<211> 411
<212> DNA
<213> Homo sapiens
<400> 2393
aacctgtcta ccgaggacca ggccgagcag gtagagattg tgaagcgctc tgagtccggc
atggtcaccg accccatcac tgcgcgcccg gatatgacca tcggggaagt agacgcgctg
tgcgcccgct tccgcatctc cggcctgccg gtggtagacg aggacggcac cctgatgggc
atttgcacca cccgcgatat gcgcttcgag cctgactttg accgcaaggt cagcgaggtc
240
```

```
atgacggcta tgccgcttgt tgttgcgcgc gagggtgtat ctaagaagga agccctcgaa
ctgctctcgg ccaataaggt ggaaaagctg cccatcgtcg atgcggataa taagctcacc
ggcctgatta ccgtcaagga ctttgtcaag accgagcagt accccaacgc g
411
<210> 2394
<211> 137
<212> PRT
<213> Homo sapiens
<400> 2394
Asn Leu Ser Thr Glu Asp Gln Ala Glu Gln Val Glu Ile Val Lys Arg
Ser Glu Ser Gly Met Val Thr Asp Pro Ile Thr Ala Arg Pro Asp Met
                                25
Thr Ile Gly Glu Val Asp Ala Leu Cys Ala Arg Phe Arg Ile Ser Gly
Leu Pro Val Val Asp Glu Asp Gly Thr Leu Met Gly Ile Cys Thr Thr
                        55
Arg Asp Met Arg Phe Glu Pro Asp Phe Asp Arg Lys Val Ser Glu Val
                                        75
                    70
Met Thr Ala Met Pro Leu Val Val Ala Arg Glu Gly Val Ser Lys Lys
                                    90
                85
Glu Ala Leu Glu Leu Leu Ser Ala Asn Lys Val Glu Lys Leu Pro Ile
                                105
            100
Val Asp Ala Asp Asn Lys Leu Thr Gly Leu Ile Thr Val Lys Asp Phe
                            120
Val Lys Thr Glu Gln Tyr Pro Asn Ala
                        135
    130
<210> 2395
<211> 362
<212> DNA
<213> Homo sapiens
<400> 2395
aagettteag aggagtttge taaagtgtta aggatttgea tatttteaac tttagteata
tctaagtgcc ccaataaaac agcgcggcgc attgggggct ggctttcatc aacaactaac
ttagcaatat taatctgacc ttttcctggt gattgggcat ttagtaataa tgcggggcca
atatcatcat actttccaaa tatttttgat tttttagaca tcaactgaag ttgtgaccat
ttactgtctt tgtcttgatg gcaatctaaa caaacatctc ttgtattaag ttgttcactt
acccaaggat taggcactct aaaggcatga tcgcgtcgat catcgactcc catgtaacgc
360
gt
362
<210> 2396
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<211> 117
<212> PRT
<213> Homo sapiens
<400> 2396
Met Gly Val Asp Asp Arg Arg Asp His Ala Phe Arg Val Pro Asn Pro
Trp Val Ser Glu Gln Leu Asn Thr Arg Asp Val Cys Leu Asp Cys His
                                25
Gln Asp Lys Asp Ser Lys Trp Ser Gln Leu Gln Leu Met Ser Lys Lys
                            40
Ser Lys Ile Phe Gly Lys Tyr Asp Asp Ile Gly Pro Ala Leu Leu Leu
Asn Ala Gln Ser Pro Gly Lys Gly Gln Ile Asn Ile Ala Lys Leu Val
                                        75
Val Asp Glu Ser Gln Pro Pro Met Arg Arg Ala Val Leu Leu Gly His
                                    90
                85
Leu Asp Met Thr Lys Val Glu Asn Met Gln Ile Leu Asn Thr Leu Ala
                                105
            100
Asn Ser Ser Glu Ser
        115
<210> 2397
<211> 449
<212> DNA
<213> Homo sapiens
<400> 2397
nacagcacae teegeeteet eegaegatea tagettteae gteggacatg ateeeeegee
tagtgtacta ctggtccttc tccgtccctc cctacgggga ccacacttcc tacaccatgg
aagggtacat caacaacact ctctccatct tcaaagtcgc agacttcaaa aacaaaagca
agggaaaccc gtactctgac ctgggtaacc ataccacatg caggtatcgt gatttccgat
acceaectgg acaeeecag gagtataaac acaaeateta etattggeat gtgattgeag
ccaagctggc ttttatcatt gtcatggagc acgtcatcta ctctgtgaaa tttttcattt
catatgcaat tcccgatgta tcaaagcgca caaagagcaa gatccagaga gaaaaatacc
taacccaaaa gcttcttcat gagaatcac
449
<210> 2398
<211> 76
<212> PRT
<213> Homo sapiens
<400> 2398
Cys Thr Thr Gly Pro Ser Pro Ser Leu Pro Thr Gly Thr Thr Leu Pro
Thr Pro Trp Lys Gly Thr Ser Thr Thr Leu Ser Pro Ser Ser Lys Ser
```

```
25
            20
Gln Thr Ser Lys Thr Lys Ala Arg Glu Thr Arg Thr Leu Thr Trp Val
Thr Ile Pro His Ala Gly Ile Val Ile Ser Asp Thr His Leu Asp Thr
                        55
Pro Arg Ser Ile Asn Thr Thr Ser Thr Ile Gly Met
<210> 2399
<211> 344
<212> DNA
<213> Homo sapiens
<400> 2399
acgcgtcatg cttcacgaaa cgggtcacgc gcttcattac caagcagctg gcaaacacaa
cttgtatttc gagcgggttg cgccagtcga gatcatggag ttcgtggcct actgcttgca
gtttctgacg atcgagcgcc tggccatgtc aggggaactt tcgggtaaag aacaggaact
agtcaaaccc tttgctggtc cggccaggct tggaggggtt cgaaaaccta caacgccaca
aaacggttcc agcactgggt ttataaacag cctaaaatcc cgacaagtaa agaactcgat
acceptatggc ttgagatgcg acacacgctc ggggtggatt ggtc
<210> 2400
<211> 112
<212> PRT
<213> Homo sapiens
<400> 2400
Met Leu His Glu Thr Gly His Ala Leu His Tyr Gln Ala Ala Gly Lys
His Asn Leu Tyr Phe Glu Arg Val Ala Pro Val Glu Ile Met Glu Phe
                                 25
Val Ala Tyr Cys Leu Gln Phe Leu Thr Ile Glu Arg Leu Ala Met Ser
                             40
Gly Glu Leu Ser Gly Lys Glu Gln Glu Leu Val Lys Pro Phe Ala Gly
                                             60
Pro Ala Arg Leu Gly Gly Val Arg Lys Pro Thr Thr Pro Gln Asn Gly
                                         75
Ser Ser Thr Gly Phe Ile Asn Ser Leu Lys Ser Arg Gln Val Lys Asn
                 85
Ser Ile Pro Tyr Gly Leu Arg Cys Asp Thr Arg Ser Gly Trp Ile Gly
 <210> 2401
 <211> 479
 <212> DNA
 <213> Homo sapiens
 <400> 2401
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nntaccgagg taaaactcga tagcctcggt gtcaccgacc agatgcgctc tgggcgctgc
tggatgtttg ccgcgctcaa cgtattccgc caccgcgcgg ccaaggagct caacatcgat
gactitgagt titcctttac ctaccigcag tacticgaca aactagagcg cgccaacitc
gegeteaace aactgetgga teteacegaa gaeggeaceg aetgggatga eegegaegtg
gctacttccc tcgagetcac aggcgacgac ggcggctggt ggtcattttt caccaacctc
gtggacaagt acggcgcagt cccggccgag gtcatgcctg aggtgcactc gtccggccac
accgaccaga tgaatcgcga tatcgccacc atcatccgcc gcgccgcgca ccgtgcggtg
gaaggcgagg gggatcgcgg gggcatcgtc aagcaagccc gccccgatat ccaacgcgt
479
<210> 2402
<211> 159
<212> PRT
<213> Homo sapiens
<400> 2402
Xaa Thr Glu Val Lys Leu Asp Ser Leu Gly Val Thr Asp Gln Met Arg
                                    10
Ser Gly Arg Cys Trp Met Phe Ala Ala Leu Asn Val Phe Arg His Arg
Ala Ala Lys Glu Leu Asn Ile Asp Asp Phe Glu Phe Ser Phe Thr Tyr
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Leu Gln Tyr Phe Asp Lys Leu Glu Arg Ala Asn Phe Ala Leu Asn Gln
Leu Leu Asp Leu Thr Glu Asp Gly Thr Asp Trp Asp Asp Arg Asp Val
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Ala Thr Ser Leu Glu Leu Thr Gly Asp Asp Gly Gly Trp Trp Ser Phe
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Phe Thr Asn Leu Val Asp Lys Tyr Gly Ala Val Pro Ala Glu Val Met
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                                 105
Pro Glu Val His Ser Ser Gly His Thr Asp Gln Met Asn Arg Asp Ile
                                                 125
        115
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Ala Thr Ile Ile Arg Arg Ala Ala His Arg Ala Val Glu Gly Glu Gly
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120
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Lys Tyr Thr Asp Glu Thr Phe Gly Val Pro Thr Ile Thr Asp Ile Leu
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Gln Glu Leu Glu Lys Pro Gly Arg Asp Pro Arg Pro Glu Phe Lys Thr
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Ala Glu Phe Gln Asp Gly Val Glu Asp Leu Lys Asp Leu Gln Pro Gly
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Met Ile Leu Glu Gly Val Val Thr Asn Val Thr Asn Phe Gly Ala Phe
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360
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Arg Met Ala His His Pro Pro Gln Cys Pro Asp Arg Arg Pro Ala
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                             40
Phe Leu Pro Ser His Ser Pro Lys Ser Lys Pro Leu Phe Ile Leu Pro
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Pro Ile Leu Leu Thr Asn Phe Phe His Arg Arg Leu Trp Leu Ile
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Gly Leu Thr Glu Ala Gln Gly Ser Val Ser Val Leu Arg Ala Leu Gln
                                     90
                 85
Val Ala Ala Pro Cys Ala Gln Ser Gln Ala Pro Cys Tyr Arg Leu Ala
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                                 105
Ala Leu Pro Leu Gln Val Leu Gly Thr Pro Gln Pro Ser Ser Trp Gly
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His Leu Leu Ala Phe Ala Gly Pro Arg Gly Ser Leu Leu Pro Gly Ser
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Gln Tyr Ala Lys Arg Met Val Gly Arg Arg Met Phe Gly Gly Ser Thr
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Thr Tyr Ile Pro Leu Lys Val Asn Gln Ser Gly Val Ile Pro Val Ile
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Asp His Pro Val Tyr
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Gly Ala Arg Val Val Ser Arg Pro Ala Gly Gly Ser Leu Cys Arg Lys

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75
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Gly Gly Trp Arg Leu Ala Cys Gly Trp Gln Glu Gly Gly Met His Val
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Thr Cys Gly Leu Trp Val His Ser Pro Gln Trp Gln Asn Leu Gln Ser
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40
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His Ile Cys Trp Ala Glu Pro Ala Trp His Glu Gln Gly Phe Ser Leu
Leu Trp Pro Pro Leu Phe Asn Thr Val Leu Leu Ser Lys Asn Trp Leu
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Gly Gly Ala Gly Pro Pro Cys Asn Leu Gln Ala Cys His Leu Val Val
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Ser Phe Cys Ser Ala Ala Ser Gln Gly Phe Ser Ala Pro Gly Ala Gly
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Trp Trp Gly Pro Ala Leu Leu Arg Leu Ile Arg Lys Asp Ala Leu His
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Gly Lys Ser Ser Pro Gln Pro Pro Val
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1020
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Ala Leu Gly Arg Glu Tyr Val His Ala Arg Leu Leu Arg Ala Gly Leu
Ser Trp Ser Ala Pro Glu Arg Ala Ser Pro Ala Pro Gly Gly Arg Leu
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Leu Gln Ser Glu Pro Val Val Thr Asp Ala Phe Leu Ala Val Ala Gly
                                105
His Ile Phe Ser Ala Gly Ile Thr Trp Gly Lys Val Val Ser Leu Tyr
                                                125
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Ala Val Ala Ala Gly Leu Ala Val Asp Cys Val Arg Gln Ala Gln Pro
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Ala Met Val His Ala Leu Val Asp Cys Leu Gly Glu Phe Val Arg Lys
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Thr Leu Ala Thr Trp Leu Arg Arg Gly Gly Trp Thr Asp Val Leu
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                165
Lys Cys Val Val Ser Thr Asp Pro Gly Leu Arg Ser His Trp Leu Val
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Ala Ala Leu Cys Ser Phe Gly Arg Phe Leu Lys Ala Ala Phe Phe Val
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Leu Leu Pro Glu Arg
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Val Val Pro Pro Arg Ser Leu Phe Asp Arg Ala Thr Pro Gly Leu Leu

PCT/US00/08621 WO 00/58473

95

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Asp Cys Lys Ser Lys Gly Pro Arg Trp Ala Ser Val Asn Leu Gly Ile
Phe Ile Cys Met Thr Cys Ser Gly Ile His Arg Ser Leu Gly Val His
Ile Ser Lys Val Arg Ser Ala Thr Leu Asp Thr Trp Leu Pro Glu Gln
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Val Ala Phe Ile Gln Ser Met Gly Asn Glu Lys Ala Asn Ser Tyr Trp
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Glu Ala Glu Leu Pro Pro Asn Tyr Asp Arg Val Gly Ile Glu Asn Leu
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1752

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Arg Glu His Glu Ala Xaa Ala Met Thr Ser Arg Pro Ala Arg Gly Phe
Gly Phe Thr Ala His Ala Gln Pro Glu Glu Arg Pro Arg Cys Lys Glu
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Ala Gly Met Asn Asp Cys Leu Phe Lys Pro Ile Ser Leu Thr Thr Leu
                    70
Asn Gln Lys Leu Ala Asp Val Thr Pro Arg Pro Arg Pro Ser Gln Ala
Ala Phe Ser Leu Asp Gly Leu His Ala Leu Thr Gly Gly Glu Pro Leu
                                105
Leu Met Arg Arg Leu Ile Asp Glu Leu Leu Ser Ser Cys Gln Ala Ala
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                            120
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Arg Glu Ala Leu Leu Gly Leu Pro Ile
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293
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Arg Arg Ser Arg His Pro Ala Asp Gly Ala Gln Gln Glu Arg Cys Cys
                             40
Val Pro Pro Gly Glu Arg Cys Pro Ser Ala Pro Asp Asn Gly Glu Glu
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60
                        55
    50
Asn Val Pro Leu Ser Gly Lys Val
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Thr Ser Thr Gly Pro Gln Pro Gly Ala Leu Ala Leu Leu Glu Gln Ala
Val His Glu Leu Asp Gly Thr Gly Asp Ala Asp Pro Arg Ala Ala Glu
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Leu Ala Glu Arg Ala Arg Gln Met Ser Tyr Asp Leu Thr Asp Leu Ala
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Ala Ser Val Ala Gly His Ala Ala Arg Ala Glu Ala Asp Pro Gln Arg
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Leu Glu Glu Leu Gly Gly Arg Leu Ala Ala Ile Gln Arg Leu Leu Arg
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Leu Leu Ser Glu Gly Asp Ile Asn Leu Ser Asn Val Pro Leu Leu Lys
Asp Ile Ala Thr Thr Ile Glu Leu Leu Lys Glu Leu Gly Ala Thr Ala
Thr Gln Thr Gln His Cys Val His Ile Asn Ala Lys Glu Val Lys Asn
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240
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Lys Ser Lys Gly Cys Val Trp Asn Thr Ala Val Thr Glu Lys Val Leu
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Phe Ala Gln Ser Ala Arg Pro Leu Leu Ser Leu Met Ser Pro Asp
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                         55
Trp Ala Phe Ile Val Pro Cys Thr Glu Ala Ser Leu Ser Pro Arg Ser
                                         75
                     70
Cys Leu Phe Gly Arg Gly Ser Thr Asn Gly Ser Thr Leu Pro Pro Thr
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Pro Thr Ala Arg Pro Ala Gly Pro Val Val Gln Leu Glu Lys Ala Arg
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 Leu Leu Ser Ser Pro Ala Leu Cys Cys Ala Gly Ala Leu His Leu Asn
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 Phe Arg Gly Lys Pro Gly Lys Arg Leu
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 240
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Ala Pro Phe Ile Val Phe Glu Asp Ala Asp Ile Asp Gln Ala Val Gln
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                                              45
Gly Ala Met Gly Ala Lys Met Arg Asn Ile Gly Glu Ala Cys Thr Ala
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Ala Asn Arg Phe Leu Val His Glu Ser Val Ala Glu Glu Phe Ser Glu
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Lys Leu Val Ala Glu Phe Glu Lys Leu Asn Leu Gly Asn Gly Met Asp
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449
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Glu Met Pro Met Tyr Gly Phe Gly Pro Met Pro Gln Pro Asp Leu Arg
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Asp Leu Arg Gly Ser Ala Pro Arg Pro Pro Leu His Ile Cys Asp Pro
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Thr His Phe His Pro Ser Ala Thr Phe Lys Phe Gln Ser Phe His Phe
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780
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Pro Ala Ala Ala Glu Trp Ala Cys Leu Leu Arg Pro Leu Arg Gly Arg
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Glu Pro Glu Gly Val Trp Asn Leu Leu Ser Ile Val Arg Glu Met Phe
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Lys Arg Arg Asp Ser Asn Ala Ala Pro Leu Leu Glu Ile Leu Thr Asp
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Gln Cys Leu Thr Tyr Glu Gln Ile Thr Gly Trp Trp Tyr Ser Val Arg
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Thr Ser Ala Ser His Ser Ser Ala Ser Gly His Thr Gly Arg Ser Asn
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Met Val Thr Leu Trp Arg Leu Ala Val Leu Asp Pro Ala Leu Ser Pro
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Gln Arg Arg Glu Leu Cys Thr Gln Leu Arg Gln Trp Gln Leu Lys
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Val Ile Glu Asn Val Lys Arg Gly Gln His Lys Lys Thr Leu Glu Arg
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Leu Phe Pro Gly Phe Arg Pro Ala Val Glu Ala Cys Tyr Phe Asn Trp
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Glu Glu Ala Tyr Pro Leu Pro Gly Val Thr Tyr Ser Gly Thr Asp Arg
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Lys Leu Ala Leu Cys Trp Ala Arg Ala Leu Pro Ser Arg Pro Gly Ala
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Ser Arg Ser Gly Gly Leu Glu Glu Ser Arg Asp Arg Pro Arg Pro Leu
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Pro Thr Glu Pro Ala Val Arg Pro Lys Glu Pro Gly Thr Lys Arg Lys
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Gly		_		260	<b>~1</b>	17-1	Bro	Ser	26 Se	5 7 (	ln	Arq	Gly			Arg	Le	u
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Car	בומ	2 G	/5 111	Glv	Glv	Asp	Lys	Ala	Le	u I	lis	Lys	Met 300	Gly	Pro	Gly	Gl	y
Glv	Lys	Α	la	Lys	Ala	Leu	Gly	Gly	Al	.a (	Зlу	Ser	Gly	Ser	Lys	GIY	32	
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					325	<b>01</b>	Ma.	Car	1.6	211	3 3 O	Asp	Ser	Ser	Leu	Ala	Le	eu
C1	- 1 ת		111	340 Ala	Ser	Thr	Phe	Gly	, G]	ly	Phe	Pro	Glu	Ser	Pro	Pro	P	ro
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Glv	Le	u :	Pro	Lys	Thr	Lys	Gl:	ı Al	a A	la	Pro	Ala	Val	Gly	Glu	Gli	ı A	.sp
Asp	As	p '	Tyr	Gln	Ala	ТУ	Ty	r Le	u A	sn	Ala	GIT	Asp	GIY	MIC	. 01)		<u>- 1</u>
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										1117						-		
Arg	j Le	u			. Glı	ı Le	u Al	a G1 52	n £	asp	Der	LLE	ı Ala	525	5			•
_			515		- T10	- 100	n I.u	s Va	11 5	Ser	Thi	c Se	r Arg	g Gli	n Th	r Tr	g q	/al
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. ומ	Th	ır	Asr	Th	c Le	ı Se	r Ly	s Al	.a /	٩la	Phe	e Le	u Leu	ı Th	r Va	l Le	u S	ser
Gli	u A:	cg	Pro	Gl	ı Ar	g Hi	s As	n Le	eu i	Ala	Phe	e Ar	g Val	I GI	у ме	57	5	nia
						_					/ I	U				_		
Le	u G	lu	Let			g Pr	O PI	O A.	La	585	111.	y	s Ala		59	0		-
	7	١.	T	58 - 31	n Gli	u Se	r G	lu V	al.	Ala	Al	a Le	u Le	u Ly	s Ly	s Il	.e	Pro
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Le	u G	lv	Pro	s Se	r Gl	u Me	t S	er T	hr	Met	Ar	g Cy	s Ar	g Al	a Gl	u Gl	.u	Leu
	_						_	1 5					92	~				
Ar	g G	lu	Gl	y Th	r Le	u Cy	/s A	sp T	yr	Arg	g Pr	o Va	l Le	u PI	O Le			640
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				~ Dr	64 • A BY	:5 :0	er A	ra A	sn	Tri	o As	n Se	r Gl	u Th	ar Pi	co Gi	ly	Asp
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Th	ır 1	al	. Se	r G	lu Al	la G	lu H	is F	ro	Le	u Le	eu Cy	/s Gl	.u GJ	LY 1	A	- 3	*** 3

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1130

1125

Ala His Gln Trp Phe Trp Leu Tyr Glu Gln Thr Ala Gly Gly Ser Ser 1145 1140 Thr Ala Arg Glu Gly Ala Thr Ser Cys Ser Ala Ser Gly Ile Arg Ala 1165 1160 1155 Gly Gly Glu Ala Gly Arg Gly Met Pro Glu Gly Arg Gly Gly Pro Gly 1175 Thr Glu Pro Val Thr Val Ala Ala Ala Ala Val Thr Ala Ala Ala Thr 1195 1185 1190 Val Val Pro Val Ile Ser Val Gly Ser Ser Leu Tyr Pro Gly Pro Gly 1205 1210 Leu Gly His Gly His Ser Pro Gly Leu His Pro Tyr Thr Ala Leu Gln 1225 1220 Pro His Leu Pro Cys Ser Pro Gln Tyr Leu Thr His Pro Ala His Pro 1245 1240 Ala His Pro Met Pro His Met Pro Arg Pro Ala Val Phe Pro Val Pro 1255 1260 Ser Ser Ala Tyr Pro Gln Val Arg Pro Val Phe Cys Trp Gly Val Arg 1275 1270 His Gly Lys Ile Leu Gly Ile His Arg Gly Leu Glu Trp Val Leu Trp 1290 1285 Glu Tyr Asn Trp Ser Val Gly Glu Ser Trp 1300 1305 <210> 2441 <211> 2244 <212> DNA <213> Homo sapiens <400> 2441 nacgogtgtg tgtctgcatg catcoatgtg tctgtacatg tatgtctcca tgtgtggtgt ggaggacaca gaaggatgga gggaaaggca ccactcacag aggcggcgct ggagaatttt ccatttgtta ttttgggttt ggtgaacatg cactttgcgt catgcaaatc aggtttctaa acattaacaa ccggagagaa atgacatttt ggggccgccg gtgactcttg cgtgcctctg ctgcccctg gtggcagccc cgagtcactt ccagcagggc ccccccaccc caagggccca gcctcgggca ggaagggtac aaagcccccg ccgtggttct gccacgaggt ctcctggaaa tgaggggaac agcacagcga cgtccttgcg tcctaaatgc atcccctggt ggccgttttt cgccacacag gcttggcaaa atctctgcgt cactgagcag cattttaacc tcttgaatga gatgcctccg accttttgga tcctctttct gcacctctca ggggacaggt cccgtctgta 540 gggaggetee tgeaaggtga tgegtetgge cataagteee actgeettet eccacetget ggcctgtgcc cagcagttcc ggaagcagac ccaggcccag gtgtacagtg aggacatggc 720

cctgaacata 780	ggctcggaac	cagaaggcct	gcaggtggaa	gagaaggagc	gccctgtgca
	agcgtcctgg	ggcccctgga	ggagcttctg	cagccgctat	tccccctgct
cagcctctcc 900	aaggccagag	tgcagacacc	tgcggttgtt	gccgattcag	ggaagtcgaa
gggcaaagac 960	aaggagagga	aaacgtccac	aggacaacac	agcacagtcc	agcctgaggt
tgccgataag 1020	atagtcctgg	tcacagacag	acatctcctg	gagetgecae	tggaaggtct
1080		caatttcctc			
1140		aagagacaga			
1200		tagcgaagaa			
1260		tcgactcaga			
1320		tgctaactcc			
1380		cgcgatgggc			
1440		ccctgggcag			
1500		tagtggagag			
1560		tggcacggtc			
1620		ttggccgttg			
1680		gaggcggtga			
1740		agctccgagc			
1800		atcgggtagt			
1860		ctgcccttgg			
1920		accetecce			
1980		gtgcgccatg			
2040		geggeeteee			
2100					
2160		tgagcctgtt			
2220		aaaaaaaaa	aaadaddd	uaauaaaaa	uuuuuaaaad
2244	aaaaaaaaa	aaaa			

<210> 2442

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 Pro Ile Ser Cys Trp Gly Pro Ser Thr Cys Leu Cys Pro Trp Leu Cys
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 Pro Ser Ala Asn Pro Ser Pro Pro Pro Gly Ser His Pro Gln Leu Pro
                            40
 Ala Arg Ser Pro Leu Pro Gly Pro Leu Pro Ser Pro Trp Cys Ser Leu
                        55
 Ser Gln Gly Pro Ser Pro Ser Asp Phe Pro Gln Gly Ser Arg Leu Asp
 Leu Glu Leu Cys Leu Pro Val Cys Ala Met Gly Ser Ala Ser Gly Leu
                85
 Glu Leu Arg Leu Phe Pro Gly Pro Gly Gln Gly Arg Pro Pro Leu Gly
            100
                               105
Gly Ala Gly Ala Glu Leu Leu Arg Pro Glu Asp Tyr Ser Asp Arg Glu
                           120
Pro Val Phe Asp Leu Ser Val Pro Leu Asn Lys Gln Gln Lys Pro Lys
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                                       155
Lys Lys Lys Lys Lys Lys
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gccgatggac gattgcgcat tgatatcgaa tccatgcgca cctttgtaga gggcaaagaa
120
gtccatttga cgaaaaacga atttttaatt gtgcagactt tgtttacgca ccccaataag
atctatacgc gcgatgaaat tatcgaagtc accttcggaa tggattatga ggcctttgac
cgtgccattg atacccatat caaaaacatt cgccagaaga ttgaagcgga tccgaaaaac
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360
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361
<210> 2444
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<212> PRT
<213> Homo sapiens
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Xaa Val Arg Ala Ile Leu Arg Arg Thr Pro Ser Arg Glu Asp Glu Lys
Met Leu Gln Thr Ala Asp Gly Arg Leu Arg Ile Asp Ile Glu Ser Met
                                 25
Arg Thr Phe Val Glu Gly Lys Glu Val His Leu Thr Lys Asn Glu Phe
                             40
Leu Ile Val Gln Thr Leu Phe Thr His Pro Asn Lys Ile Tyr Thr Arg
                        55
Asp Glu Ile Ile Glu Val Thr Phe Gly Met Asp Tyr Glu Ala Phe Asp
                    70
Arg Ala Ile Asp Thr His Ile Lys Asn Ile Arg Gln Lys Ile Glu Ala
Asp Pro Lys Asn Pro Val Tyr Ile Arg Thr Val Tyr Gly Val Gly Tyr
            100
                                105
Leu Pro Gly Gly Phe Asp Glu Ala
        115
<210> 2445
<211> 403
<212> DNA
<213> Homo sapiens
<400> 2445
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ctccccttca tttgatatcc tgctcttggc agaaggatgg agaaagagca tcgcacaaag
aggaagcatg titatccigt toagattact gottotgoca ggotgotgot gotgttgggt
tetgeacatt tgetetttat taageaaatg teagagetgg gtgetggeaa gggaateece
240
tgtatttaca caggtaaacc tgagagccag agggccccaa accatcctgg ctgcgaggga
300
caagctatta gagttaataa cagtgcactg gcattccttc aaaatcctaa tggaagcata
aataaaaaga ggaaagtccc ctttacccaa gaacctgaaa aan
403
<210> 2446
<211> 102
<212> PRT
<213> Homo sapiens
<400> 2446
Met Glu Lys Glu His Arg Thr Lys Arg Lys His Val Tyr Pro Val Gln
Ile Thr Ala Ser Ala Arg Leu Leu Leu Leu Gly Ser Ala His Leu
Leu Phe Ile Lys Gln Met Ser Glu Leu Gly Ala Gly Lys Gly Ile Pro
                            40
Cys Ile Tyr Thr Gly Lys Pro Glu Ser Gln Arg Ala Pro Asn His Pro
Gly Cys Glu Gly Gln Ala Ile Arg Val Asn Asn Ser Ala Leu Ala Phe
```

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70
65
Leu Gln Asn Pro Asn Gly Ser Ile Asn Lys Lys Arg Lys Val Pro Phe
                                    90
                85
Thr Gln Glu Pro Glu Lys
            100
<210> 2447
<211> 744
<212> DNA
<213> Homo sapiens
<400> 2447
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gacctggtgc ggcccacttc gtaccgcaat gcctggtcaa ccctcgacac tttgctgggg
ttgggcgtcg tgccgatcgt caacgagaac gacacggtcg ccaccggaga aattcggttt
ggcgataatg atcggcttgc tgccctggta gccgagctgg tgcgcgctca agccctcatt
etgetetetg acgttgacge ettgtacace geccateegg atteacegga tgetegtege
gtggaggttg tggaggacat cgatgcattg gatgtcgata cccataaagc tggttcgggg
gtgggaaccg gcggcatgac cacgaaactt gaagccgccc gaatggccac ctgtgccggg
gtaccggtgg tactcgcagc ggcggtggat gccccggacg ttctggctgg tgcccccgtg
ggtacctact teegeeeget ggegaegega eggeeeegae ggttgetgtg gttggeegae
 getgecacce egeagggaea gategteate gaegaeggag etgtegaage tttgaeacag
 540
 egteatteet egttgttgge ggtgggtgtg actegggtae aeggggattt eeaageagge
 gacccagtga cgatcctggc ctccgacggt cgagttgttg gtcgcggtat cgcccagttc
 teccatgatg aggtgegegt catg
 744
 <210> 2448
 <211> 248
 <212> PRT
 <213> Homo sapiens
 <400> 2448
 Xaa Ala Ser Arg Phe Ala Ser His Gly Leu Arg Val Gly Gln Val Leu
                                      10
                   5
  1
 Leu Thr Val Asn Asp Leu Val Arg Pro Thr Ser Tyr Arg Asn Ala Trp
                                  25
 Ser Thr Leu Asp Thr Leu Leu Gly Leu Gly Val Val Pro Ile Val Asn
 Glu Asn Asp Thr Val Ala Thr Gly Glu Ile Arg Phe Gly Asp Asn Asp
 Arg Leu Ala Ala Leu Val Ala Glu Leu Val Arg Ala Gln Ala Leu Ile
```

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75
65
                    70
Leu Leu Ser Asp Val Asp Ala Leu Tyr Thr Ala His Pro Asp Ser Pro
                                    90
                85
Asp Ala Arg Arg Val Glu Val Val Glu Asp Ile Asp Ala Leu Asp Val
                                105
           100
Asp Thr His Lys Ala Gly Ser Gly Val Gly Thr Gly Gly Met Thr Thr
                            120
Lys Leu Glu Ala Ala Arg Met Ala Thr Cys Ala Gly Val Pro Val Val
                        135
                                            140
Leu Ala Ala Ala Val Asp Ala Pro Asp Val Leu Ala Gly Ala Pro Val
                   150
                                        155
Gly Thr Tyr Phe Arg Pro Leu Ala Thr Arg Arg Pro Arg Arg Leu Leu
                                   170
               165
Trp Leu Ala Asp Ala Ala Thr Pro Gln Gly Gln Ile Val Ile Asp Asp
           180
                               185
Gly Ala Val Glu Ala Leu Thr Gln Arg His Ser Ser Leu Leu Ala Val
                            200
Gly Val Thr Arg Val His Gly Asp Phe Gln Ala Gly Asp Pro Val Thr
                       215
                                           220
Ile Leu Ala Ser Asp Gly Arg Val Val Gly Arg Gly Ile Ala Gln Phe
                   230
Ser His Asp Glu Val Arg Val Met
               245
<210> 2449
<211> 296
<212> DNA
<213> Homo sapiens
<400> 2449
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ctactgctct cccctcctcc ctgggccctg tcctatcccc agaggccaga caggccttcc
togcatgoaa gagtotocot ogcootgoog gacagtggoo tocatotaco tgootgtott
qctqqactcc agaacactcc agtcctttcc cccttggggg ttgggggggg ccccccttt
ttttccccc ctttccctct tcattccaca ggaggccagc ctcaacatcc ccnccc
<210> 2450
<211> 90
<212> PRT
<213> Homo sapiens
<400> 2450
Met Asn Thr Cys Arg His Gln Leu Pro Lys Ile Ser Tyr Cys Ser Pro
                                    10
Leu Leu Pro Gly Pro Cys Pro Ile Pro Arg Gly Gln Thr Gly Leu Pro
                               25
Arg Met Gln Glu Ser Pro Ser Pro Cys Arg Thr Val Ala Ser Ile Tyr
                            40
Leu Pro Val Leu Leu Asp Ser Arg Thr Leu Gln Ser Phe Pro Pro Trp
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60
                        55
Gly Leu Gly Gly Ala Pro Pro Phe Phe Pro Pro Leu Ser Leu Phe Ile
    50
                    70
Pro Gln Glu Ala Ser Leu Asn Ile Pro Xaa
                85
<210> 2451
<211> 589
<212> DNA
<213> Homo sapiens
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tgcaacgatg atcttgtgag cgatgtattg accggtgtgt gggccgatct tgtgggccag
120
gagaaggetg teggggteet gegtegtgee geegaatege ageeggggeg etegteeeat
180acgcatggct cattacgggt ccgcctggat caggtcggtc gaatgctgcg
aaggeetttg cageggeget acagtgegte gaccatggat gegggeagtg caatgeetgt
cgaaccngcc tgtcaggcgc ccatectgac gtcaccctcg tgcgtactga ggcgctgtct
360
attggcgtcg attgaggtcg tgaaatgggt ttgttcgagc gggcgatgaa ttcgggtccc
 cggggcgtcc ccagggttgt cgtcgtcgaa gatgccgacc gcatcactga acgcggagct
 gacgccttgc ttaaagctat cgaggagcct gcgccgaaaa ccgtctggtt gctgtgcc
 cetactecag aggacgicat egicacgate aggicgagat gieggegee
 589
 <210> 2452
 <211> 121
 <212> PRT
 <213> Homo sapiens
 Leu Asp Cys Ser Thr Gly Glu Glu Ser Ser Gly Tyr Asp Val Gly Pro
 <400> 2452
 Ile Cys Asn Asp Asp Leu Val Ser Asp Val Leu Thr Gly Val Trp Ala
  1
                                  25
 Asp Leu Val Gly Gln Glu Lys Ala Val Gly Val Leu Arg Arg Ala Ala
                              40
 Glu Ser Gln Pro Gly Arg Ser Ser His Ala Met Ser His Ala Trp Leu
                          55
  Ile Thr Gly Pro Pro Gly Ser Gly Arg Ser Asn Ala Ala Lys Ala Phe
                                          75
                      70
  Ala Ala Ala Leu Gln Cys Val Asp His Gly Cys Gly Gln Cys Asn Ala
                                      90
  Cys Arg Thr Xaa Leu Ser Gly Ala His Pro Asp Val Thr Leu Val Arg
                                                       110
                                  105
  Thr Glu Ala Leu Ser Ile Gly Val Asp
                              120
          115
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<210> 2453
<211> 695
<212> DNA
<213> Homo sapiens
<400> 2453
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acaggttggc acacgcacat gcccctgggt atgctcatgt ccattcatcc atcccagcct
gtgcacgtcc tctcactcct gtgttcacac ctatgcccaa atgaaccaag ggacacacat
240
gcacaccctt atgtggtgca cacacactcg tgcacacgga gccacaccag cacatgctca
gaggcatttg tgtgcgtggg catttgcagc atgactcaga acggagtatg gggtggcgcg
gegtggetgg ggaggtecca teageeegee tetgaaacce teceaacctg eccateetgg
cccaggcact gtgtctccgg cttgggcttc agccccggac cccaggacac cccggacaaa
gaggagetge tetegtetga ageetgetae gaatgeagga teaatggeet eteceetegg
gaccggccac gacgcagtgc ccacagggac caccaggtga catgggtgct gcactaggca
ggggtggcca gggaatgggt gagtgtggga aagaggctgt ggacccgact tagtcatgtc
660
agececega agaaggagea eeaggeteea gatet
695
<210> 2454
<211> 166
<212> PRT
<213> Homo sapiens
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Met Ser Tyr Ser Pro Cys Glu His Thr Gly Trp His Thr His Met Pro
                                    10
Leu Gly Met Leu Met Ser Ile His Pro Ser Gln Pro Val His Val Leu
Ser Leu Leu Cys Ser His Leu Cys Pro Asn Glu Pro Arg Asp Thr His
Ala His Pro Tyr Val Val His Thr His Ser Cys Thr Arg Ser His Thr
                        55
                                            60
Ser Thr Cys Ser Glu Ala Phe Val Cys Val Gly Ile Cys Ser Met Thr
                    70
                                        75
Gln Asn Gly Val Trp Gly Gly Ala Ala Trp Leu Gly Arg Ser His Gln
                                    90
Pro Ala Ser Glu Thr Leu Pro Thr Cys Pro Ser Trp Pro Arg His Cys
                                105
            100
Val Ser Gly Leu Gly Phe Ser Pro Gly Pro Gln Asp Thr Pro Asp Lys
                            120
Glu Glu Leu Leu Ser Ser Glu Ala Cys Tyr Glu Cys Arg Ile Asn Gly
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140
                        135
    130
Leu Ser Pro Arg Asp Arg Pro Arg Arg Ser Ala His Arg Asp His Gln
                                        155
                    150
Val Thr Trp Val Leu His
                165
<210> 2455
<211> 378
<212> DNA
<213> Homo sapiens
<400> 2455
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ggaaccgcgc agaaggaaat ccacgcgctg ccgatcatga aggcgctccc catgggcgtc
aaagaactcg ttctgggcga atcgaagtgg caggacgagt tgatcaacaa cttcatcgtc
gegetgtttg caggegtggt gttgctgtte geggtgctgg tgctgctgta ceggegettg
etgeegeegt teatcaaegt gatgtegetg geggtggeae egetgggegg gttgategge
ctgtggctga ccaacacgcc gatctcgatg ccggtctata tcggcttgat catgctgctc
ggcatcgtcg ccaagaat
378
 <210> 2456
 <211> 126
 <212> PRT
 <213> Homo sapiens
 <400> 2456
 Thr Arg Arg Gln Lys Arg Gln Leu Thr Val Gly Ala Asp Leu Ser Pro
 Gly Val Val Ser Gly Thr Ala Gln Lys Glu Ile His Ala Leu Pro Ile
                                 25
 Met Lys Ala Leu Pro Met Gly Val Lys Glu Leu Val Leu Gly Glu Ser
                             40
 Lys Trp Gln Asp Glu Leu Ile Asn Asn Phe Ile Val Ala Leu Phe Ala
                         55
 Gly Val Val Leu Leu Phe Ala Val Leu Val Leu Tyr Arg Arg Leu
                     70
 Leu Pro Pro Phe Ile Asn Val Met Ser Leu Ala Val Ala Pro Leu Gly
                                     90
                 85
 Gly Leu Ile Gly Leu Trp Leu Thr Asn Thr Pro Ile Ser Met Pro Val
                                 105
 Tyr Ile Gly Leu Ile Met Leu Leu Gly Ile Val Ala Lys Asn
                                                  125
                             120
 <210> 2457
 <211> 754
 <212> DNA
  <213> Homo sapiens
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cctaggaatt taccaccatc aaagacttac attaaccagc tatccatgaa ctcacctgag
atgagegaat gtgacatett geacactetg egatggtett eteggeteeg gateagetee
tatgtcaact ggataaagga tcaccttatc aaacagggaa tgaaggctga gcatgctagc
tegettetag aactggcate caccactaag tgtageteag tgaaatatga tgttgaaata
gtagaggaat acttcgctcg acagatctca tccttctgta gtatcgactg tgccaccatc
ttqcaqctqc atqaaattcc caqtctqcaq tccatctaca cccttgatgc cgcgattcta
aaaggcccag qtctttttqq gatgagcatt tttctaagat ggctgctgag actgatcctc
ataagtcgtc tgagattacc aagaacctac ttccagccac gctgcaactc attgacacct
atqcatcqtt caccaqagcc tatttgctgc aaaactttaa tgaagaggga acaactgaga
aaccttccaa ggagaaactg caaggctttg ctgctgtttt ggctattggc tctagcaggt
qcaaqqcaaa tactctqqqt ccqacactqq ttcaqaattt gccatcqtca gtgcaqactq
tgtgtgagtc ctggaacaac atcaatacca atgaatttcc caatattgga tcctggcgca
atgeettige caatgacace atceetteac gegt
754
<210> 2458
<211> 236
<212> PRT
<213> Homo sapiens
<400> 2458
Met Asn Ser Pro Glu Met Ser Glu Cys Asp Ile Leu His Thr Leu Arg
Trp Ser Ser Arg Leu Arg Ile Ser Ser Tyr Val Asn Trp Ile Lys Asp
His Leu Ile Lys Gln Gly Met Lys Ala Glu His Ala Ser Ser Leu Leu
Glu Leu Ala Ser Thr Thr Lys Cys Ser Ser Val Lys Tyr Asp Val Glu
Ile Val Glu Glu Tyr Phe Ala Arg Gln Ile Ser Ser Phe Cys Ser Ile
                    70
                                        75
Asp Cys Ala Thr Ile Leu Gln Leu His Glu Ile Pro Ser Leu Gln Ser
Ile Tyr Thr Leu Asp Ala Ala Ile Leu Lys Gly Pro Gly Leu Phe Gly
                                105
Met Ser Ile Phe Leu Arg Trp Leu Leu Arg Leu Ile Leu Ile Ser Arg
                            120
Leu Arg Leu Pro Arg Thr Tyr Phe Gln Pro Arg Cys Asn Ser Leu Thr
                                            140
    130
                        135
Pro Met His Arg Ser Pro Glu Pro Ile Cys Cys Lys Thr Leu Met Lys
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<400> 2457

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150
                                         155
Arg Glu Gln Leu Arg Asn Leu Pro Arg Arg Asn Cys Lys Ala Leu Leu
                 165
                                     170
Leu Phe Trp Leu Leu Ala Leu Ala Gly Ala Arg Gln Ile Leu Trp Val
             180
                                 185
Arg His Trp Phe Arg Ile Cys His Arg Gln Cys Arg Leu Cys Val Ser
                             200
Pro Gly Thr Thr Ser Ile Pro Met Asn Phe Pro Ile Leu Asp Pro Gly
                         215
Ala Met Pro Leu Pro Met Thr Pro Ser Leu His Ala
225
<210> 2459
<211> 382
<212> DNA
<213> Homo sapiens
<400> 2459
accggtgcac agategttet ggccgcgtgc actgccccgc tcaagcaaat cqctatcaac
getggtettg agggeggegt egtggetgag aaggtegetg gtetgeeege aggacaggge
ctcaacgcgg ccaatgacga gtatgtcgac atggtagagg ccggcatcat tgacccggcc
aaggtgaccc gttcggctct gcagaacgcc gcgtccatcg cggccctqtt cctcaccact
gaageegtea tegetgacaa geeegageet gttaaggete eegetggegg eggtgatatq
gacggtatgg gtggcatggg cggcatgatg tgatcgtgta ttgccttcgc tgatttqaqt
gggatgccac tttgccccag gc
382
<210> 2460
<211> 110
<212> PRT
<213> Homo sapiens
Thr Gly Ala Gln Ile Val Leu Ala Ala Cys Thr Ala Pro Leu Lys Gln
Ile Ala Ile Asn Ala Gly Leu Glu Gly Gly Val Val Ala Glu Lys Val
                                25
Ala Gly Leu Pro Ala Gly Gln Gly Leu Asn Ala Ala Asn Asp Glu Tyr
                            40
Val Asp Met Val Glu Ala Gly Ile Ile Asp Pro Ala Lys Val Thr Arg
Ser Ala Leu Gln Asn Ala Ala Ser Ile Ala Ala Leu Phe Leu Thr Thr
                    70
                                        75
Glu Ala Val Ile Ala Asp Lys Pro Glu Pro Val Lys Ala Pro Ala Gly
Gly Gly Asp Met Asp Gly Met Gly Gly Met Gly Gly Met Met
                                105
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 <211> 558
 <212> DNA
 <213> Homo sapiens
<400> 2461
teeggacaaa agggtteaat egaagtatgg ttageetttt ecaagtegee aggacggace
tgcaatgctg tttgtcgtca tgctcggggg caagcaccca cgggctaaaa tcgaaattca
cgatgtggta ttcgcagtcg cggatacgct gcaacacacc tacacccaat tgcgcgacgq
ctggttcggc agccctaagg tgtgcatatc gatgcgtgga tggccgtcga tggcqtcqac
240
ggctggaaag tcgaactcag ccagatggcg ccgcctgccg acgcgcatca cctgtacttc
atcaacctcg gcggctacga ggccaacgct tttggcgagg cccatcatta cctgctggtg
gtcgcccggg acaaacagga agccaagcgc aaggggcagc ggcaaatgtt gcaacactgg
420
teccaggeee acacegatgg egtaatggat ategaegaet gettgeegat tgatetggtg
gacggtcgct atgttcacct ggtgcaaggc ccgcaccagc cgatcatcca gcacaacgac
540
tacatcatcc tgccgcga
558
<210> 2462
<211> 148
<212> PRT
<213> Homo sapiens
<400> 2462
Met Val Ser Leu Phe Gln Val Ala Arg Thr Asp Leu Gln Cys Cys Leu
                                    10
Ser Ser Cys Ser Gly Ala Ser Thr His Gly Leu Lys Ser Lys Phe Thr
Met Trp Tyr Ser Gln Ser Arg Ile Arg Cys Asn Thr Pro Thr Pro Asn
                            40
Cys Ala Thr Ala Gly Ser Ala Ala Leu Arg Cys Ala Tyr Arg Cys Val
Asp Gly Arg Arg Trp Arg Arg Leu Glu Ser Arg Thr Gln Pro Asp
                    70
                                        75
Gly Ala Ala Cys Arg Arg Ala Ser Pro Val Leu His Gln Pro Arg Arg
                85
                                    90
Leu Arg Gly Gln Arg Phe Trp Arg Gly Pro Ser Leu Pro Ala Gly Gly
                                105
Arg Pro Gly Gln Thr Gly Ser Gln Ala Gln Gly Ala Ala Ala Asn Val
                            120
Ala Thr Leu Val Pro Gly Pro His Arg Trp Arg Asn Gly Tyr Arg Arg
    130
                        135
                                            140
Leu Leu Ala Asp
145
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<210> 2463
<211> 333
<212> DNA
<213> Homo sapiens
cccagggggt aagccatgag cctgttgagc caagtggccc gggcgccgtt gagcgccaag
ttcggcctgc tgattattct gttatacgtc gcgctggcgc tgtgngcgcc gctgctggcg
ccctatggcg aaacccaggt ggtgggtgaa ggcttcgcgc cgtggagcgg ccagtttttg
ctgggcaccg ataacctggg gcgcgacatg ttcagccgcc tgatgtacgg cgcgcgcaat
accttgggca ttgccttcct gacgacgacg ctggcgtttc tgctcggtgg tttgagcggt
ttggtcgcgg cgatcaaggg cggttgggtc gac
<210> 2464
<211> 106
 <212> PRT
 <213> Homo sapiens
Met Ser Leu Leu Ser Gln Val Ala Arg Ala Pro Leu Ser Ala Lys Phe
 <400> 2464
                                     10
                  5
 Gly Leu Leu Ile Ile Leu Leu Tyr Val Ala Leu Ala Leu Xaa Ala Pro
                                 25
             20
 Leu Leu Ala Pro Tyr Gly Glu Thr Gln Val Val Gly Glu Gly Phe Ala
                             40
 Pro Trp Ser Gly Gln Phe Leu Leu Gly Thr Asp Asn Leu Gly Arg Asp
                         55
 Met Phe Ser Arg Leu Met Tyr Gly Ala Arg Asn Thr Leu Gly Ile Ala
                                          75
                     70
 Phe Leu Thr Thr Leu Ala Phe Leu Leu Gly Gly Leu Ser Gly Leu
                 85
 Val Ala Ala Ile Lys Gly Gly Trp Val Asp
              100
  <210> 2465
  <211> 434
  <212> DNA
  <213> Homo sapiens
  nntcatgagg acatttccct catatttggt ggtggtaaat ccctcctggg acacggggaa
  atgaccagag getggeggee cacetggeag gaacagatge cagetetget geagecateg
  ccccttgagc gggtggctct gtgcctcttt ctgcactgct ggtgggtggt gctgttggct
  gggtgatgga taccggctgc cagagatggc tcaggtgcca gctgctgggc tatctcaggc
  240
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actggctgct gggctatctc gggtgccggc tgctgggcta tctcaggcgc tggctgctgc
300
tgggctgtct cgggtgctgg ctgttgggac gtctcctgtc ctggcactgg gctctcgggt
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tttccatctc cgac
434
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<211> 82
<212> PRT
<213> Homo sapiens
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Trp Ile Pro Ala Ala Arg Asp Gly Ser Gly Ala Ser Cys Trp Ala Ile
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Ser Gly Thr Gly Cys Trp Ala Ile Ser Gly Ala Gly Cys Trp Ala Ile
                                 25
Ser Gly Ala Gly Cys Cys Trp Ala Val Ser Gly Ala Gly Cys Trp Asp
        35
                             40
                                                 45
Val Ser Cys Pro Gly Thr Gly Leu Ser Gly Ala Gly Cys Gln Leu Leu
Pro Thr Leu His Trp Ala Leu Gly Thr His Cys Thr Arg Ala Phe Pro
65
                    70
                                         75
Ser Pro
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<212> DNA
<213> Homo sapiens
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gtcggcgggc caaggaagaa gtcggtgtcg aggtccgtga aggccggtct ccagttcccc
120
gtcggccgca tcgggcgcta cttgaagaag ggccgctacg cgcagcgtgt cggcaccggc
gcccccgtct acctcgccgc tgtcctcgaa tacctcgccg ctgaggttct ggagctcgcc
ggtaatgctg ccagggacaa caagaagact cgcattattc cgcgccacgt gcttctggcg
300
atccgg
306
<210> 2468
<211> 102
<212> PRT
<213> Homo sapiens
<400> 2468
Met Asp Ser Thr Gly Thr Gly Ala Gly Gly Lys Gly Lys Gly Ala
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10
Ala Gly Arg Lys Val Gly Gly Pro Arg Lys Lys Ser Val Ser Arg Ser
                                25
Val Lys Ala Gly Leu Gln Phe Pro Val Gly Arg Ile Gly Arg Tyr Leu
            20
Lys Lys Gly Arg Tyr Ala Gln Arg Val Gly Thr Gly Ala Pro Val Tyr
Leu Ala Ala Val Leu Glu Tyr Leu Ala Ala Glu Val Leu Glu Leu Ala
                                        75
Gly Asn Ala Ala Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His
                                     90
                85
Val Leu Leu Ala Ile Arg
            100
<210> 2469
<211> 489
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 agaataaaac tttatttcat agagttattg tatggctcaa aataggtatg aagaattaag
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 aacgtggag
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  <211> 115
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  <213> Homo sapiens
  <400> 2470
  Met Ala Ser Leu Lys Pro Ala Leu Pro Trp Pro Arg Lys Leu Cys Arg
  Thr Asp Glu Ile Ser Ala Gly Thr Cys Ser Gln Val Gly Phe Gly Leu
  Leu Gly Arg Arg Glu Arg Ala Phe Lys Gly Gln Gly Gln Ser Met Val
  Lys Gly Met Glu Met Arg Lys Arg Gly Pro Glu Gln Arg Val Arg Leu
                          55
  Glu Ser Glu Leu Gly Ser Ile Cys Lys Gly Ala Asp Val Pro Gly Lys
```

```
75
65
                     70
                                                              80
Lys Gln Glu His Ser Leu Val Leu Ser Asp His Phe Arg Trp Lys Gly
                                     90
Ser Gly Asn Val Gly Glu Asn Thr Phe Trp Cys Arg Tyr Ile Glu Ser
             100
                                 105
Ala His Leu
        115
<210> 2471
<211> 779
<212> DNA
<213> Homo sapiens
<400> 2471
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ctcacatggt ggcccttgac ttctttcaca gtgaggacct ctgcttcatg aggctcataa
120
gaagaggagc taaggactat tttgtcatgg gggcgccaat ccactgcatc ttctactata
atteteteat treetgagge aatateaget ceaagatgtg teeaggagtt ettaggataa
gcactgtaaa gatgaacttt cccataaacc ccaattgttc ctgggtcaat atgaattcca
ttcatacggt cacaaaagac tccctctgag gctctaagga gaatcagaag cttttgttcc
360
ttttctaagg gattttctaa agtaccaact ttcagctccc cgcctgcaat gaccatgcat
420
gccacactca gaacattgct tetgtecaca gggaagteta aggteeccat cacatacage
480
cctttgaaga attggaaaat ctgtatccac aaggacagtt ctgttgggta aaatgagaac
gtcatcccca gggcctggaa tggtattgtt gtatcctccc cagccttctt caacaccttg
ccatgtttca gggagggacc attttaaagc tgattcaggg gcagaggtag aagctgaaat
agttgggggc atacetteet teaceeggag aatgaettga aettggeett caeetaaaae
cagataggtg agttgcctca gctggctatt gaagaaccag tcacagcctt ggttctggc
779
<210> 2472
<211> 181
<212> PRT
<213> Homo sapiens
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Met Thr Phe Ser Phe Tyr Pro Thr Glu Leu Ser Leu Trp Ile Gln Ile
Phe Gln Phe Phe Lys Gly Leu Tyr Val Met Gly Thr Leu Asp Phe Pro
Val Asp Arg Ser Asn Val Leu Ser Val Ala Cys Met Val Ile Ala Gly
Gly Glu Leu Lys Val Gly Thr Leu Glu Asn Pro Leu Glu Lys Glu Gln
```

```
Lys Leu Leu Ile Leu Leu Arg Ala Ser Glu Gly Val Phe Cys Asp Arg
                    70
Met Asn Gly Ile His Ile Asp Pro Gly Thr Ile Gly Val Tyr Gly Lys
                                    90
Val His Leu Tyr Ser Ala Tyr Pro Lys Asn Ser Trp Thr His Leu Gly
                                105
Ala Asp Ile Ala Ser Gly Asn Glu Arg Ile Ile Val Glu Asp Ala Val
                            120
Asp Trp Arg Pro His Asp Lys Ile Val Leu Ser Ser Ser Tyr Glu
                        135
Pro His Glu Ala Glu Val Leu Thr Val Lys Glu Val Lys Gly His His
                                        155
                    150
Val Arg Ile Tyr Glu Arg Leu Lys His Arg His Ile Gly Ser Val His
                                    170
                165
Val Thr Glu Asp Gly
            180
<210> 2473
<211> 698
<212> DNA
<213> Homo sapiens
<400> 2473
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cgcatctgct ccaaggccca cagctggcag ccgnnggcat ccagaaccca taccggggca
ccgtggtgtg gatggtacnc tgagaatgtg gacatctctg tgaccctcta cagggacccc
cacgtggacc agtatgaggc caaagagtgg acatttatta ttgaaaatga gtctaagggg
cageggaagg tgetggecae ggeegaggtg gaeetggeee geeatgeeag ggeeegtgee
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 gagetgagee teactettte eggggtgetg etgegggagg geegtgeeae ggaegatgae
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 tttgctgaga gtgatgaaga tgaggctcat ggcccaggag ccccggaggc ccgggctcga
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 <210> 2474
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 <212> PRT
  <213> Homo sapiens
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Arg Arg Asn Arg Arg Ile Cys Ser Lys Ala His Ser Trp Gln Pro Xaa
Ala Ser Arg Thr His Thr Gly Ala Pro Trp Cys Gly Trp Tyr Xaa Glu
Asn Val Asp Ile Ser Val Thr Leu Tyr Arg Asp Pro His Val Asp Gln
                        55
                                            60
Tyr Glu Ala Lys Glu Trp Thr Phe Ile Ile Glu Asn Glu Ser Lys Gly
Gln Arg Lys Val Leu Ala Thr Ala Glu Val Asp Leu Ala Arg His Ala
                                    90
Arg Ala Arg Ala Xaa Ser Lys Ser Xaa Leu Arg Leu Arg Leu Lys Pro
            100
                                105
Lys Ser Val Lys Thr Val Gln Ala Glu Leu Ser Leu Thr Leu Ser Gly
                            120
Val Leu Leu Arg Glu Gly Arg Ala Thr Asp Asp Met Gln Ser Leu
                        135
                                            140
Ala Ser Leu Met Ser Val Lys Pro Ser Asp Val Gly Asn Leu Asp Asp
                   150
                                        155
Phe Ala Glu Ser Asp Glu Asp Glu Ala His Gly Pro Gly Ala Pro Glu
                                    170
                165
Ala Arg Ala Arg Val Pro Gln Pro Gly Gly Leu Thr Ala Cys Cys Gly
            180
                                185
Ser Arg Leu Pro Arg Pro Gly Glu Gly Gly Leu Pro Gly Pro Pro Ala
                            200
                                                205
Thr Cys Cys Ala Arg Pro Val Met Gly Thr His Tyr Cys Pro Gly Ser
                        215
Pro Asn Gln Pro Ser Ser Leu Asn
<210> 2475
<211> 1251
<212> DNA
<213> Homo sapiens
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agecectee tggeetgetg geageceate etectgetgg tgetgggete agtgetgtea
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tgccaccgca agcgctttgt ggcagtcccc gagggcatcc ccaccgagac gcgcctgctg
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ctggaggagc tggagctcaa cgagaacatc gtgagcgccg tggagcccgg cgccttcaac
aacctcttca acctccggac gctgggtctc cgcagcaacc gcctgaagct catcccgcta
ggcgtcttca ctggcctcag caacctgacc aagctggaca tcagcgagaa caagatcgtt
480
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atcctactgg actacatgtt tcaggacctg tacaacctca agtcactgga ggttggcgac
 aatgacctcg tctacatctc tcaccgcgcc ttcagcggcc tcaacagcct ggagcagctg
 acgetggaga aatgeaacet gacetecate cecacegagg egetgteeca eetgeaegge
 660
 ctcatcgtcc tgaggctccg gcacctcaac atcaatgcca tccgggacta ctccttcaag
 720
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 cccaactgcc tctacggcct caacctgacg tccctgtcca tcacacactg caatctgacc
 getgtgeeet acctggeegt eegecaceta gtetatetee getteeteaa eeteteetae
 aaccccatca gcaccattga gggctccatg ttgcatgagc tgctccggct gcaggagatc
 cagctggtgg gcgggcagct ggccgggtgg agccctgcct tccgcggcct caactacctg
 cgcgtgctca atgtctctgg caaccagctg accacactgg aggaatcagt cttccactcg
gtgggcaacc tggagacact catcctggac tccaacccgc tggcctgcga ctgtcggctc
ctgtgggtgt tccggcgccg tggcctacaa acttcaaccg gcagcagccc acgtgcgcca
cgcccgagtt tgtccagggg caaggagttc aaggacttcc ctgatgtgct a
1251
<210> 2476
<211> 417
<212> PRT
<213> Homo sapiens
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Xaa Ala Pro Glu Met Gln Val Ser Lys Arg Met Leu Ala Gly Gly Val
Arg Ser Met Pro Ser Pro Leu Leu Ala Cys Trp Gln Pro Ile Leu Leu
Leu Val Leu Gly Ser Val Leu Ser Gly Ser Ala Thr Gly Cys Pro Pro
Arg Cys Glu Cys Ser Ala Gln Asp Arg Ala Val Leu Cys His Arg Lys
                        55
Arg Phe Val Ala Val Pro Glu Gly Ile Pro Thr Glu Thr Arg Leu Leu
                    70
                                        75
Asp Leu Gly Lys Asn Arg Ile Lys Thr Leu Asn Gln Asp Glu Phe Ala
                                    90
Ser Phe Pro His Leu Glu Glu Leu Glu Leu Asn Glu Asn Ile Val Ser
                                105
Ala Val Glu Pro Gly Ala Phe Asn Asn Leu Phe Asn Leu Arg Thr Leu
                                                125
Gly Leu Arg Ser Asn Arg Leu Lys Leu Ile Pro Leu Gly Val Phe Thr
    130
                        135
                                            140
Gly Leu Ser Asn Leu Thr Lys Leu Asp Ile Ser Glu Asn Lys Ile Val
145
                    150
                                        155
Ile Leu Leu Asp Tyr Met Phe Gln Asp Leu Tyr Asn Leu Lys Ser Leu
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170

165

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Glu Val Gly Asp Asn Asp Leu Val Tyr Ile Ser His Arg Ala Phe Ser
                                185
Gly Leu Asn Ser Leu Glu Gln Leu Thr Leu Glu Lys Cys Asn Leu Thr
                                                 205
                            200
        195
Ser Ile Pro Thr Glu Ala Leu Ser His Leu His Gly Leu Ile Val Leu
                                            220
                        215
Arg Leu Arg His Leu Asn Ile Asn Ala Ile Arg Asp Tyr Ser Phe Lys
                                         235
                    230
Arg Leu Tyr Arg Leu Lys Val Leu Glu Ile Ser His Trp Pro Tyr Leu
                                    250
                245
Asp Thr Met Thr Pro Asn Cys Leu Tyr Gly Leu Asn Leu Thr Ser Leu
                                                     270
                                265
            260
Ser Ile Thr His Cys Asn Leu Thr Ala Val Pro Tyr Leu Ala Val Arg
                            280
        275
His Leu Val Tyr Leu Arg Phe Leu Asn Leu Ser Tyr Asn Pro Ile Ser
                                            300
                        295
Thr Ile Glu Gly Ser Met Leu His Glu Leu Leu Arg Leu Gln Glu Ile
                                        315
                    310
Gln Leu Val Gly Gly Gln Leu Ala Gly Trp Ser Pro Ala Phe Arg Gly
                                    330
                325
Leu Asn Tyr Leu Arg Val Leu Asn Val Ser Gly Asn Gln Leu Thr Thr
                                                     350
                                345
            340
Leu Glu Glu Ser Val Phe His Ser Val Gly Asn Leu Glu Thr Leu Ile
                            360
Leu Asp Ser Asn Pro Leu Ala Cys Asp Cys Arg Leu Leu Trp Val Phe
                        375
Arg Arg Arg Gly Leu Gln Thr Ser Thr Gly Ser Ser Pro Arg Ala Pro
                                         395
                    390
Arg Pro Ser Leu Ser Arg Gly Lys Glu Phe Lys Asp Phe Pro Asp Val
                405
Leu
<210> 2477
<211> 548
<212> DNA
<213> Homo sapiens
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aagtgtgagg agttcccgtc cagcctgtca tcagtctccc caggtcttga agcggcggcc
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cagcagcatg tcaagtttgg caagaagtgc tggcggaagg tgtgggctct gctgtatgca
ggaggcccat caggcgtggc acggctggag aactgggagg tccgggatgg tggcctggga
gcagcgggtg acaggtcggc ggggcctggc cggcgagggg agcgacgggt catccgcctg
420
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gctgactgtg tgtccgtgct gccggctgac ggcgagagct gcccccggga caccggtgcc
tteetgetea ecaccacega gegaageeat etactggetg eteageaceg ecaggeetgg
540
atgggccc
548
<210> 2478<211> 113
<212> PRT
<213> Homo sapiens
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Leu Glu Thr Pro Ile Lys Asp Gly Ile Leu Tyr Gln Gln His Val Lys
Phe Gly Lys Lys Cys Trp Arg Lys Val Trp Ala Leu Leu Tyr Ala Gly
                                25
Gly Pro Ser Gly Val Ala Arg Leu Glu Asn Trp Glu Val Arg Asp Gly
                            40
Gly Leu Gly Ala Ala Gly Asp Arg Ser Ala Gly Pro Gly Arg Arg Gly
Glu Arg Arg Val Ile Arg Leu Ala Asp Cys Val Ser Val Leu Pro Ala
                                        75
                    70
Asp Gly Glu Ser Cys Pro Arg Asp Thr Gly Ala Phe Leu Leu Thr Thr
                                    90
Thr Glu Arg Ser His Leu Leu Ala Ala Gln His Arg Gln Ala Trp Met
Gly
<210> 2479
<211> 324
<212> DNA
<213> Homo sapiens
<400> 2479
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aggtactgga atgacaatga agcagcagaa aggcttgcgt tgatgtgggc taaaaccttc
180
aaatatgcgt cgataaacgt ctcctggcag accgggatta gcaatagcga cgacgagggc
aatgaagatg aagacatgtt ctacgccggt atctccattc cgctgggagg cggggggtac
tctaactcct ggtatcgtga atat
324
<210> 2480
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2480
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Glu Phe Met Glu Val Tyr Glu Glu Asp Glu Glu Tyr Ala Tyr Glu Lys
 Tyr Glu Thr His Phe Gly Thr Ser Trp Met Glu Glu Thr Ala Gly Thr
             20
                                 25
 Phe Ser Leu Asn Trp Tyr Arg Ser Arg Tyr Trp Asn Asp Asn Glu Ala
Ala Glu Arg Leu Ala Leu Met Trp Ala Lys Thr Phe Lys Tyr Ala Ser
Ile Asn Val Ser Trp Gln Thr Gly Ile Ser Asn Ser Asp Asp Glu Gly
                     70
                                         75
Asn Glu Asp Glu Asp Met Phe Tyr Ala Gly Ile Ser Ile Pro Leu Gly
                85
Gly Gly Ala Tyr Ser Asn Ser Trp Tyr Arg Glu Tyr
<210> 2481
<211> 484
<212> DNA
<213> Homo sapiens
<400> 2481
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agccctaaag gcaagcgtat tgaagctcgt ttccctgatc caaccgctaa cccataccta
gcattttcag ctatgttgat ggctggtatc gatggtatca aaaacaagat tcaccctqqc
gatgcagcag acaaagattt gtacgacctt ccagctgaag aagcagccgc tatccctcaa
gttgctagca gcttagaaga agcgcttaag tgcctagatc aagaccgtga qttcttqact
360
caaggtggcg ttttctctga cgacatgatc gatgcttaca tcqctcttaa aqcaqaaqaa
gcacagcgtg ttgcaatgac aacaacacca cttgagttcg aactttacta cagcctataa
480
gctt
484
<210> 2482
<211> 159
<212> PRT
<213> Homo sapiens
<400> 2482
Ala Phe Thr Asn Ala Ser Thr Asn Ser Tyr Lys Arg Leu Val Pro Gly
Phe Glu Ala Pro Val Met Leu Ala Tyr Ser Ala Arg Asn Arg Ser Ala
            20
                                25
Ser Ile Arg Ile Pro Tyr Val Ala Ser Pro Lys Gly Lys Arg Ile Glu
                            40
Ala Arg Phe Pro Asp Pro Thr Ala Asn Pro Tyr Leu Ala Phe Ser Ala
   50
                        55
                                         . 60
```

```
Met Leu Met Ala Gly Ile Asp Gly Ile Lys Asn Lys Ile His Pro Gly
Asp Ala Ala Asp Lys Asp Leu Tyr Asp Leu Pro Ala Glu Glu Ala Ala
                                    90
                85
Ala Ile Pro Gln Val Ala Ser Ser Leu Glu Glu Ala Leu Lys Cys Leu
                                105
            100
Asp Gln Asp Arg Glu Phe Leu Thr Gln Gly Gly Val Phe Ser Asp Asp
                                                125
                            120
Met Ile Asp Ala Tyr Ile Ala Leu Lys Ala Glu Glu Ala Gln Arg Val
                                            140
                        135
Ala Met Thr Thr Pro Leu Glu Phe Glu Leu Tyr Tyr Ser Leu
                                        155
                    150
145
<210> 2483
<211> 477
<212> DNA
<213> Homo sapiens
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ctggagaaca ggcagcctct gaggaaacct ctgatccccg atcagccacc ccatcgcctg
cgtccccagc cgcttcctcc tggccttgtt cccccttccc tgtgaaggag agaacagttt
 cggctggccc tgagatgctg gcaggcctgc agtcagggca gtgggcgcct cccaccttga
 aatggtcctt cgtggtgcag ttctgcttac ggggtagact ttgttgcctt ccacagagga
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 aagtgggaat tetetegtge eetggagtet gggaatgeat ttttagttte eeagetteag
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 477
 <210> 2484
 <211> 130
 <212> PRT
 <213> Homo sapiens
  <400> 2484
 Met His Ser Gln Thr Pro Gly His Glu Arg Ile Pro Thr Ser Gly Asn
                                      10
 Ser Leu Glu Cys Arg Leu Val Ala Glu Thr Ser Phe Leu Pro Thr Leu
                                  25
  Thr Val Leu Cys Gly Arg Gln Gln Ser Leu Pro Arg Lys Gln Asn Cys
                              40
  Thr Thr Lys Asp His Phe Lys Val Gly Gly Ala His Cys Pro Asp Cys
  Arg Pro Ala Ser Ile Ser Gly Pro Ala Glu Thr Val Leu Ser Phe Thr
                      70
  Gly Lys Gly Glu Gln Gly Glu Glu Ala Gly Asp Ala Gly Asp
                                      90
                  85
```

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Gly Val Ala Asp Arg Gly Ser Glu Val Ser Ser Glu Ala Ala Cys Ser
                                 105
Pro Glu Gly Pro Gln Ala Arg Val Arg Arg Glu Arg Glu Glu Pro Arg
                            120
Phe Gly
    130
<210> 2485
<211> 608
<212> DNA
<213> Homo sapiens
<400> 2485
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aagacccgcg actgcaacga ggtgctcttt gtcgatgcag ttgaacatcg ctggatcgag
gagetgggtg gtatgaactt catggccatc agcaaagacg gtcagetegt caccecegag
ctagetggca ccatectgeg tggegtgace egeaagteca ttetggaagt tgeeceegae
ctcggtcttg aaccagtgga gcgcaagatc gatgttgacg agctccttga tggcgttcgc
totggcgagt toccggaagt ottcgcotgt ggtaccgccg cggttgtcac accgatcggc
360
tettteetag atggagatae egaegtgaag gtetetgage ecaeeggaaa gaeeaegatg
qaqatccqtc qccgtctgct ggatatccag ttcggacgcg ctgaggacac ccatggctgg
ttgaagcgag tctgctgacg gcgtcgacga ccattggggc cggccccaat gatgtgttca
cqatcqqqct acgacqqtqt cgatqacaat qtcttqcqqc tqgaaqqttt qcccqacqqt
600
gaacgcgt
608
<210> 2486
<211> 165
<212> PRT
<213> Homo sapiens
<400> 2486
Thr Gly Glu Ala Lys Cys Gly Gly Asn Tyr Ala Ala Ser Leu Arg Ser
                                                         15
Gln Ile Asp Ala Lys Thr Arg Asp Cys Asn Glu Val Leu Phe Val Asp
Ala Val Glu His Arg Trp Ile Glu Glu Leu Gly Gly Met Asn Phe Met
                            40
Ala Ile Ser Lys Asp Gly Gln Leu Val Thr Pro Glu Leu Ala Gly Thr
                        55
Ile Leu Arg Gly Val Thr Arg Lys Ser Ile Leu Glu Val Ala Pro Asp
                                        75
Leu Gly Leu Glu Pro Val Glu Arg Lys Ile Asp Val Asp Glu Leu Leu
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90

85

```
Asp Gly Val Arg Ser Gly Glu Phe Pro Glu Val Phe Ala Cys Gly Thr
                                105
Ala Ala Val Val Thr Pro Ile Gly Ser Phe Leu Asp Gly Asp Thr Asp
                            120
                                                125
Val Lys Val Ser Glu Pro Thr Gly Lys Thr Thr Met Glu Ile Arg Arg
                                            140
                        135
Arg Leu Leu Asp Ile Gln Phe Gly Arg Ala Glu Asp Thr His Gly Trp
                                        155
                    150
Leu Lys Arg Val Cys
                165
<210> 2487
<211> 339
<212> DNA
<213> Homo sapiens
<400> 2487
nncccetcag gagageagec catggaaggt ccccccaag gggeccetga gagecetgae
agtotgoaaa gaaaccagaa agagotocag ggootoctga cocaggtgoa agcootggag
120
aaggaggccg caagcagtgt ggacgtgcag gccctgcgga ggctctttga ggccgtgccc
180
cagctgggag gggctgctcc tcaggctcct gctgcccacc aaaagcccga ggcctcagtg
qagcaggcct ttggggagct gacacgggtc agcacggaag ttgctcaact gaaggaacag
accttggtaa ggctgctgga cattgaagag gctgtgcac
339
<210> 2488
<211> 113
<212> PRT
<213> Homo sapiens
<400> 2488
Xaa Pro Ser Gly Glu Gln Pro Met Glu Gly Pro Pro Gln Gly Ala Pro
                                    10
Glu Ser Pro Asp Ser Leu Gln Arg Asn Gln Lys Glu Leu Gln Gly Leu
Leu Thr Gln Val Gln Ala Leu Glu Lys Glu Ala Ala Ser Ser Val Asp
Val Gln Ala Leu Arg Arg Leu Phe Glu Ala Val Pro Gln Leu Gly Gly
                        55
                                            60
Ala Ala Pro Gln Ala Pro Ala Ala His Gln Lys Pro Glu Ala Ser Val
                    70
                                        75
Glu Gln Ala Phe Gly Glu Leu Thr Arg Val Ser Thr Glu Val Ala Gln
                                    90
Leu Lys Glu Gln Thr Leu Val Arg Leu Leu Asp Ile Glu Glu Ala Val
                                105
                                                    110
           100
His
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<210> 2489

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<213> Homo sapiens
<400> 2489
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ctgggcttca tggtgacctt cgcgatcgga ggcatgaccg gcgtactgct ggccatcccg
ggtgctgact tcgtactgca caacagcctg ttcggaattg ctcacttcca caacgtgatc
ateggeggeg cagtattegg etacategea ggttteaget tetaetteee gaaagegtte
ggettcaage tgeacgaaag etggggeaag getgeattet ggttetggat etegggette
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geoececca eccetgagtg ggtecegtae etgtacgttg ceatggtegg tgeactgatg
ategetgteg gtategeetg ceagttgatt cagetgtatg teagegtgeg tgategeaag
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<211> 198
<212> PRT
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Val Lys Leu Phe Asn Trp Leu Val Thr Ile Tyr His Gly Arg Val Arg
                                 25
            20
Ile Thr Ser Gln Val Leu Trp Thr Leu Gly Phe Met Val Thr Phe Ala
                            40
Ile Gly Gly Met Thr Gly Val Leu Leu Ala Ile Pro Gly Ala Asp Phe
                                             60
                        55
Val Leu His Asn Ser Leu Phe Gly Ile Ala His Phe His Asn Val Ile
                    70
                                         75
Ile Gly Gly Ala Val Phe Gly Tyr Ile Ala Gly Phe Ser Phe Tyr Phe
                                     90
Pro Lys Ala Phe Gly Phe Lys Leu His Glu Ser Trp Gly Lys Ala Ala
                                 105
Phe Trp Phe Trp Ile Ser Gly Phe Phe Val Ala Phe Met Pro Leu Tyr
                             120
Ala Leu Gly Phe Met Gly Met Thr Arg Cys Leu Asn Ala Pro Pro Thr
                        135
Pro Glu Trp Val Pro Tyr Leu Tyr Val Ala Met Val Gly Ala Leu Met
                                         155
                    150
Ile Ala Val Gly Ile Ala Cys Gln Leu Ile Gln Leu Tyr Val Ser Val
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                165
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Arg Asp Arg Lys Gln Asn Met Cys Glu Ser Gly Asp Pro Trp Asn Ala
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His Thr Leu Glu Trp Ser
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gatettgeag tgttegaaag eggaaetgta tteegegeeg teaeteegge tgeggeaeeg
cgtcccggtg tcgacgagcg cccctccgat gaagtccttg ccgagatcga cgccgccttg
ccageccage egegeatget egeggeegtg atetgtggea getggetgee egategetgg
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Thr Arg His Ala Thr Val Lys Leu Ala Asn Pro Leu Asp Asp Thr Arg
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Pro Tyr Leu Arg Thr Thr Leu Leu Pro Gly Leu Phe His Ala Val Thr
                                 25
Thr Asn Met Ser Arg Ser Gln Asp Asp Leu Ala Val Phe Glu Ser Gly
                             40
Thr Val Phe Arg Ala Val Thr Pro Ala Ala Ala Pro Arg Pro Gly Val
                         55
Asp Glu Arg Pro Ser Asp Glu Val Leu Ala Glu Ile Asp Ala Ala Leu
                                         75
                     70
Pro Ala Gln Pro Arg Met Leu Ala Ala Val Ile Cys Gly Ser Trp Leu
                                     90
Pro Asp Arg Trp Asp Gly Glu Ser Val Lys Ala Asp Trp Arg His Ala
                                 105
            100
Val Leu Val Ala Gln Lys Ala Ala Asp Ala Leu Gly Val Arg Leu Val
                                                 125
                             120
        115
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Arg Lys Ala Asp Arg Gln Ala Pro Trp His Pro Gly Arg Cys Ala Ala
                         135
                                             140
 Leu Ile Val Asp Gly Lys Val Ile Gly His Ala Gly Glu Leu His Pro
                     150
                                         155
 Thr Val Val Ser Lys Ala Gly Leu Pro Gln Arg Thr Cys Ala Val Glu
                 165
                                     170
 Phe Asn Leu Asp Ala Leu Val Ala Cys Ala Pro Ser Gly Gly Glu Val
                                 185
Met Val Ile Ser Arg
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<210> 2493
<211> 418
<212> DNA
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ctatcgaact acctcatgct cgaacctcat tcggtcatca agaccatcga ctcttcccta
cctacgggat ctatcaatgt ctccctggct gaggaagccc aaaagtacgg cgcacaagtg
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aagggcgcca ggcggggagc cgaccgctct teeteggtet acctecaget gacgteggtg
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418
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<211> 139
<212> PRT
<213> Homo sapiens
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Thr Arg Gln Val Ala Gly Asp Arg Ala Thr Val Thr Ser Met Val Pro
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Ser Gly Ala Asp Pro His Thr Tyr Glu Pro Ser Leu Arg Asp Val Arg
                                25
Thr Val Val Tyr Ser Arg Val Ala Leu Ser Asn Tyr Leu Met Leu Glu
                            40
Pro His Ser Val Ile Lys Thr Ile Asp Ser Ser Leu Pro Thr Gly Ser
                                            60
Ile Asn Val Ser Leu Ala Glu Glu Ala Gln Lys Tyr Gly Ala Gln Val
                    70
                                        75
Ile Pro Leu Val Glu Asn Ala Asn Leu Asp Thr Val Trp Leu Gly Leu
Arg Val Ile Gly Lys Gly Ala Arg Arg Gly Ala Asp Arg Ser Ser Ser
                                105
                                                    110
Val Tyr Leu Gln Leu Thr Ser Val Glu Gly Pro Gly Asp Phe Thr Ala
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<213> Homo sapiens
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cacctgcage ecegegetet acceggttea ageatggetg accaggegee ettegacaeg
gacgtcaaca ccctgacccg cttcgtcatg gaggagggca ggaaggcccg cggcacgggc
gagttgaccc agctgctcaa ctcgctctgc acagcagtca aagccatctc ttcggcggtg
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 aaaaggggta aatatgtggt ctgttttgat ccccttgatg gatcttccaa catcgattgc
 cttgtgtccg ttggaaccat ttttggcatc tatagaaaga aatcaactga tgagccttct
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  gagaaggctg ggggaatggc caccactggg aaggaggccg tgttagacgt catteccaca
  gacattcacc agagggcgcc ggtgatcttg gggtcccccg acgacgtgct cgagttcctg
  aaggtgtatg agaagcactc tgcccagtga gcacctgccc tgcctgcatc cggagaattg
  cetetacetg gacettttgt etcacacage agtaceetga cetgetgtge acettacatt
  1320
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cctaqaqaqc agaaataaaa agcatgacta tttccaccat caaatgctgt agaatgcttg

gcactcccta accaaatgct gtctccataa tgccactggt gttaagatat attttgagtg gatggaggag aaataaactt attcctcctt aaaaaaaa 1478 <210> 2496 <211> 338 <212> PRT <213> Homo sapiens <400> 2496 Met Ala Asp Gln Ala Pro Phe Asp Thr Asp Val Asn Thr Leu Thr Arg 10 Phe Val Met Glu Glu Gly Arg Lys Ala Arg Gly Thr Gly Glu Leu Thr 25 Gln Leu Leu Asn Ser Leu Cys Thr Ala Val Lys Ala Ile Ser Ser Ala 40 Val Arg Lys Ala Gly Ile Ala His Leu Tyr Gly Ile Ala Gly Ser Thr 55 Asn Val Thr Gly Asp Gln Val Lys Lys Leu Asp Val Leu Ser Asn Asp 70 75 Leu Val Met Asn Met Leu Lys Ser Ser Phe Ala Thr Cys Val Leu Val 90 Ser Glu Glu Asp Lys His Ala Ile Ile Val Glu Pro Glu Lys Arg Gly 105 Lys Tyr Val Val Cys Phe Asp Pro Leu Asp Gly Ser Ser Asn Ile Asp 120 Cys Leu Val Ser Val Gly Thr Ile Phe Gly Ile Tyr Arg Lys Lys Ser 135 Thr Asp Glu Pro Ser Glu Lys Asp Ala Leu Gln Pro Gly Arg Asn Leu 155 150 Val Ala Ala Gly Tyr Ala Leu Tyr Gly Ser Ala Thr Met Leu Val Leu 165 170 Ala Met Asp Cys Gly Val Asn Cys Phe Met Leu Asp Pro Ala Ile Gly 185 Glu Phe Ile Leu Val Asp Lys Asp Val Lys Ile Lys Lys Lys Gly Lys 200 Ile Tyr Ser Leu Asn Glu Gly Tyr Ala Lys Asp Phe Asp Pro Ala Val 215 220 Thr Glu Tyr Ile Gln Arg Lys Lys Phe Pro Pro Asp Asn Ser Ala Pro 230 235 Tyr Gly Ala Arg Tyr Val Gly Ser Met Val Ala Asp Val His Arg Thr 245 250 Leu Val Tyr Gly Gly Ile Phe Leu Tyr Pro Ala Asn Lys Lys Ser Pro 265 Asn Gly Lys Leu Arg Leu Leu Tyr Glu Cys Asn Pro Met Ala Tyr Val 280 Met Glu Lys Ala Gly Gly Met Ala Thr Thr Gly Lys Glu Ala Val Leu 290 300 Asp Val Ile Pro Thr Asp Ile His Gln Arg Ala Pro Val Ile Leu Gly 310 315 Ser Pro Asp Asp Val Leu Glu Phe Leu Lys Val Tyr Glu Lys His Ser

335 330 325 Ala Gln <210> 2497 <211> 399 <212> DNA <213> Homo sapiens acgcgtgtct tggccggtga aacccttccc gcagcaggtt cagtacgtcg caccggcgag cttggctacc tgccacagga tccccgcgac ccagacatgg aaatgatcgc gagggcaagg atcctgtcag cgcgtggcct ggaccacata ctggaacgga tgcgcaccct ggagtatcag atggcgaacg gttccgagga cgaccgtgcc gttgcgatgg acaaatacgc gaaggctgaa gaccgtctcg tcgcggccgg tggctatggc gcctctgcag aggcagcccg aatcgcgtcg aacttggggc ttgacgaccg cgtcctttcc cagccgttga aaaacctctc gggtggtcag cgtcgtcgcg tcgagctggc gcgcatcctc ttttccgga 399 <210> 2498 <211> 133 <212> PRT <213> Homo sapiens Thr Arg Val Leu Ala Gly Glu Thr Leu Pro Ala Ala Gly Ser Val Arg <400> 2498 10 Arg Thr Gly Glu Leu Gly Tyr Leu Pro Gln Asp Pro Arg Asp Pro Asp 25 Met Glu Met Ile Ala Arg Ala Arg Ile Leu Ser Ala Arg Gly Leu Asp His Ile Leu Glu Arg Met Arg Thr Leu Glu Tyr Gln Met Ala Asn Gly 60 Ser Glu Asp Asp Arg Ala Val Ala Met Asp Lys Tyr Ala Lys Ala Glu 75 70 Asp Arg Leu Val Ala Ala Gly Gly Tyr Gly Ala Ser Ala Glu Ala Ala 90 Arg Ile Ala Ser Asn Leu Gly Leu Asp Asp Arg Val Leu Ser Gln Pro 105 Leu Lys Asn Leu Ser Gly Gly Gln Arg Arg Arg Val Glu Leu Ala Arg 125 120 115 Ile Leu Phe Ser Gly 130 <210> 2499 <211> 348 <212> DNA <213> Homo sapiens

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180
gagaagatag cgcgttacaa tgagaagaag gttcacgcgc tgatgaacga tgccqqcatc
240
gtgcgcaacc gcgccaagat cgaaggcacg atcgccagcg cgaaggcgta tctcgacatc
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348
<210> 2500
<211> 116
<212> PRT
<213> Homo sapiens
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Gly Val Pro Glu Tyr Asp Asp Arg Ala Leu Tyr Glu Lys Leu Ile Leu
                                25
Asp Gly Phe Gln Ala Gly Leu Ser Trp Ile Thr Ile Leu Arg Lys Arg
                             40
Asp Asn Phe Arg Lys Ala Phe Asp Asp Phe Gln Pro Glu Lys Ile Ala
Arg Tyr Asn Glu Lys Lys Val His Ala Leu Met Asn Asp Ala Gly Ile
65
                                         75
Val Arg Asn Arg Ala Lys Ile Glu Gly Thr Ile Ala Ser Ala Lys Ala
                                     90
Tyr Leu Asp Ile Met Glu Lys Gly Pro Gly Phe Ser Arg Leu Leu Trp
            100
                                105
Asp Phe Val Asp
       115
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<211> 569
<212> DNA
<213> Homo sapiens
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taatgcccat taagccactc catacacttc tttaaatagg aaaatatatg taaagtacgt
acttagcaca gggcctgacc tatagtaatg gtcaagaatg atagcggggg tgaggtatgg
ctttcaagag tcaaacaatt ttactggtgc atcatttcca tttattcttt ctcttttgca
taataaaacc actcttaaga ttctaccttg gttagttaga gacaacagtt ctctggaaag
300
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tagattctat agcttcaact ccctgaagag atgtgtgcta atttacatca aaaaaatcct
taagggtata aaatatgcca agaactgtca acatcacaga ttaccactgg tagcttctgg
420
tatattgtta agtttccact taatttttaa gggacactag agaattagta tgactcacct
acactaagtt tatatactgt atttaacagt gtaattttca aatatgacag gaataaccca
gatgtgaaat gctgaatcat taatcacag
569
<210> 2502
<211> 100
<212> PRT
<213> Homo sapiens
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Met Ile Ala Gly Val Arg Tyr Gly Phe Gln Glu Ser Asn Asn Phe Thr
Gly Ala Ser Phe Pro Phe Ile Leu Ser Leu Leu His Asn Lys Thr Thr
            20
                                25
Leu Lys Ile Leu Pro Trp Leu Val Arg Asp Asn Ser Ser Leu Glu Ser
                            40
Arg Phe Tyr Ser Phe Asn Ser Leu Lys Arg Cys Val Leu Ile Tyr Ile
Lys Lys Ile Leu Lys Gly Ile Lys Tyr Ala Lys Asn Cys Gln His His
Arg Leu Pro Leu Val Ala Ser Gly Ile Leu Leu Ser Phe His Leu Ile
Phe Lys Gly His
            100
<210> 2503
<211> 419
<212> DNA
<213> Homo sapiens
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aaggeettge taceteagea gteetacage ttggeecage egetgtatte teeagtetge
accaatgggg agegetttet ctacetgeeg ceaecteact aegteggtee ceaeateeea
tegteettgg cateacceat gaggeteteg acacettegg cetececage catecegeet
ctcgtccatt gcgcagacaa aagcctcccg tggaagatgg gcgtcagccc tgggaatcct
300
gttgattccc acgcctatcc tcacatccag aacagtaagc agcccagggt tccctctgcc
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419
<210> 2504
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PCT/US00/08621

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<211> 121
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  <213> Homo sapiens
  <400> 2504
 Met Tyr Lys Ala Leu Leu Pro Gln Gln Ser Tyr Ser Leu Ala Gln Pro
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 Leu Tyr Ser Pro Val Cys Thr Asn Gly Glu Arg Phe Leu Tyr Leu Pro
                                  25
 Pro Pro His Tyr Val Gly Pro His Ile Pro Ser Ser Leu Ala Ser Pro
                              40
 Met Arg Leu Ser Thr Pro Ser Ala Ser Pro Ala Ile Pro Pro Leu Val
                          55
                                              60
 His Cys Ala Asp Lys Ser Leu Pro Trp Lys Met Gly Val Ser Pro Gly
 Asn Pro Val Asp Ser His Ala Tyr Pro His Ile Gln Asn Ser Lys Gln
                                      90
 Pro Arg Val Pro Ser Ala Lys Ala Val Thr Ser Gly Leu Pro Gly Asp
 Thr Ala Leu Leu Leu Pro Pro Ser Arg
         115
 <210> 2505
 <211> 540
 <212> DNA
 <213> Homo sapiens
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acgaatgggc gtgtcatggc cgccatcgcg tggatcgtcg tggcagcagt ctcggctctc
aacgtggttc tcgtcgtcga gacggtcatg ggtgcatgat ccttgagggc agttttctgg
cgacaatcgt gaaaatgagt gacaaactca agcgggtgac gacgccgaac cccgcaccga
300
cetetgeeca egagetagee aacgatttgg ceaetgeatt tegegggtae eetgetggag
tggcgatect cacgacgatg ggageggetg ggcccgaggg ettgaeggte teeteeetgg
cgtcggtgtc agtcgtcccg gctgttgtgt cggtgtcgtt gggtaatggt tcgacgaccc
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540
<210> 2506
<211> 72
<212> PRT
<213> Homo sapiens
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Ser Gly Ala Asn Pro Thr Gln Ala Leu Val Trp Ser Gln Val Leu Leu
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2

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5
                                    10
Ser Met Gly Leu Pro Leu Val Leu Val Pro Leu Ala Arg Phe Thr Gly
Asp Arg Arg Leu Met Gly Gln Trp Thr Asn Gly Arg Val Met Ala Ala
Ile Ala Trp Ile Val Val Ala Ala Val Ser Ala Leu Asn Val Val Leu
Val Val Glu Thr Val Met Gly Ala
65
<210> 2507
<211> 922
<212> DNA
<213> Homo sapiens
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agetteatge ecceaggaca taaatageee ggetgetgea ggtacetgaa ggagtteagg
120
acggagcagt geoccetgtt tteacageae aagtgegege ageaeeggee gtteacetge
180
ttccactggc acttcctcaa ccagcggcgc cgcaggcccc tccgcaggcg cgacggcacc
ttcaactaca geceegacgt gtactgetee aagtacaacg aagecacegg egtgtgeeee
300
gacggcgacg agtgtcccta cctgcaccgg acgacggggg acacagaacg caagtaccac
360
ctgcqttact acaaaacagg aacctgcatc cacgagacag acgcacgtgg ccactgcgtg
420
aaqaatqqqc tqcactqtqc cttcqcqcac gggccccatg acctccqctc ccctqtctac
qacatcaqqq aqcttcaqqc catqqaggcc ttgcagaatg gccagaccac ggtagagggg
540
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922
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<212> PRT
<213> Homo sapiens
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                                 25
 His Trp His Phe Leu Asn Gln Arg Arg Arg Pro Leu Arg Arg Arg
                            40
 Asp Gly Thr Phe Asn Tyr Ser Pro Asp Val Tyr Cys Ser Lys Tyr Asn
                        55
                                            60
 Glu Ala Thr Gly Val Cys Pro Asp Gly Asp Glu Cys Pro Tyr Leu His
                                        75
 Arg Thr Thr Gly Asp Thr Glu Arg Lys Tyr His Leu Arg Tyr Tyr Lys
                85
                                   90
 Thr Gly Thr Cys Ile His Glu Thr Asp Ala Arg Gly His Cys Val Lys
            100
Asn Gly Leu His Cys Ala Phe Ala His Gly Pro His Asp Leu Arg Ser
                            120
Pro Val Tyr Asp Ile Arg Glu Leu Gln Ala Met Glu Ala Leu Gln Asn
                        135
Gly Gln Thr Thr Val Glu Gly Ser Ile Glu Gly Gln Ser Ala Gly Ala
                   150
Ala Ser His Ala Met Ile Glu Lys Ile Leu Ser Glu Glu Pro Arg Trp
                165
                                    170
Gln Glu Thr Ala Tyr Val Leu Gly Asn Tyr Lys Thr Glu Pro Cys Lys
                                185
Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro Tyr Tyr His
                            200
Asn Ser Lys Asp Arg Arg Ser Pro Arg Lys His Lys Tyr Arg Ser
                        215
Ser Pro Cys Pro Asn Val Lys His Gly Asp Glu Trp Gly Asp Pro Gly
                    230
Lys Cys Glu Asn Gly Asp Ala Cys Gln Tyr Cys His Thr Arg Thr Glu
                                   250
Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys Cys Asn Gly Arg
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Gly Gly Gly Val Arg Glu
       275
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<211> 348

<212> DNA

<213> Homo sapiens

<400> 2509

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cggcaggttg ccgagggcaa acacgttgac cacgttcgca ccgacaccac cgaccacggc

caccgctccc agcggaatct cgtagactta gcgccagggt tggtaaggcg tgtagcggtc 300

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348
<210> 2510
<211> 108
<212> PRT
<213> Homo sapiens
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Phe Val Asp Ala Arg Glu Val Leu Leu Pro Ala Thr Ile Gly Leu Asp
            20
Val His Glu Arg Val Glu Pro Gly Lys Thr Glu Thr Gln Pro Ile Leu
        35
                            40
Gly Asp Ala Gly Arg Gln Val Ala Glu Gly Lys His Val Asp His Val
                        55
Arg Thr Asp Thr Thr Asp His Gly His Arg Ser Gln Arg Asn Leu Val
Asp Leu Ala Pro Gly Leu Val Arg Arg Val Ala Val Val Thr Thr Gly
                85
Asp Leu Glu Leu Gly Ala Ser Lys Ser Ser Ala Val
            100
<210> 2511
<211> 663
<212> DNA
<213> Homo sapiens
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360
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atgtccggac agatccccgc tgaggaacac atcccggtcg atctagctat gatcattgag
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660
gac
663
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<211> 221
 <212> PRT
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 Pro Gln Ala Ala Asp Glu Tyr Tyr Gln Leu Leu Leu Ala Leu Arg Pro
 Gly Arg Val Ala Gly Leu Ala Glu Ile Val Val Asn Gly Gln Pro Phe
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Arg Ile Leu Leu Glu Gly Thr Pro Ile Ala Met Asp Gly Ser Trp Gln
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Leu His Arg Arg Arg Ala Ala Pro Glu Pro Val Arg Phe Ala Lys Arg
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Phe Gly Glu Gln Ser Asn Thr Ser Ile Met Val Gly Asp Ala Ile
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Ile Ile Lys Met Phe Arg Arg Leu Glu Pro Gly Asp Asn Leu Asp Ile
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Leu Tyr Gly Phe Met Ser Gly Gln Ile Pro Ala Glu Glu His Ile Pro
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115 Glu Val Ile Thr Se	er Lys Glu Lys	Glu lle Inr 1	40	
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Ser Val Ile Glu V	al Cys Gly Hi	s Asn Phe Gln A	la Gly Glu Leu	GIÀ
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225 Val Trp Leu Tyr L	eu Ile Leu Al	a Val Phe Ser	Pro Gly Val Val	Gin
2 Val Trp Glu Ala L	eu Leu Thr Le	u Val Phe Phe	pro vai cys vai 270	•42
260 Phe Ala Trp Met A				
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290 Gly Asp Pro Pro I	Lys Ser Ile G	lu Leu Asp Gly	Thr Phe Val Gly	320
305 Glu Ala Pro Gly (	Glu Leu Gly G	ly Leu Gly Pro	335	;
Arg Glu Leu Asp				
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355 Ala Asn Tyr Tyr	Ala Leu Leu H	is Gln Gln Lys	Ser Arg Ala Phe	= IYI
370 Arg Ile Gln Ala	Thr Arg Leu M	et Thr Gly Ala	Gly Abii tun ==	400
385 Arg His Ala Ala				
Gly Glu Asp Glu	Asp Asp Gly	la Ser Arg Ile	Phe Phe Glu Pro	o Ser
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-1	- 1	595	~1		<b>~1</b>		600	<b>a</b> 1	m\	14	*	605	7	<b>~1</b> ~	17-1
GIY		Leu	GIU	Pne	GIY		Asp	GIU	inr	Met	620	inr	Leu	GIN	vai
T	610	1701	7	* ~ ~	C1	615	T1 00	C1.,	Ture	Lys		A c n	Dhe	Dhe	Tla
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Olu	шси	Ory	0111	645	0111		Dou	_,,	650	<b>U</b> -1				655	
Leu	Asn	Gln	Glv		Glv	asp	Arg	Lvs		Thr	Ala	Glu	Glu		Glu
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Arg	Leu	Glu	Val	Ile	Ile	Glu	Glu	Ser	Tyr	Asp	Phe	Lys	Asn	Thr	Val
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Asp	Lys	Leu	Ile	Lys	Lys	Thr	Asn	Leu	Ala	Leu	Val	Ile	Gly	Thr	His
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Val	Arg	Thr	Gly		Leu	Ala	Phe	Ser		Thr	Leu	Phe	Thr		Phe
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Ala	Phe	Val		Ile	Ala	Val	Leu		Tyr	Arg	Arg	Arg		HIS	тте
<b>~</b> 3	<b>63</b> -	<b>01</b>	900	<b>~1.</b> ~	<b>~</b> 3	D	7	905	D==	T	T 633	- ומ	910 Thr	Th~	• ומ
GTA	GTÀ	915	Leu	GTÅ	стλ	PTO		GIA	PLO	Lys	Leu		TIIT	1111	vrq
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305
<210> 2528
<211> 101
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<213> Homo sapiens
<400> 2528
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Ser Lys Glu Gln Gln Ile Gln Arg Asp Asp Leu Gly Ala Ser Pro Gln
                                25
Ser Ser Ser Gln Pro Asp His Gly Arg Leu Ser Pro Pro Glu Ala Pro
Asp Arg Pro Thr Ile Ser Thr Ala Ser Glu Thr Ser Val Tyr Val Thr
                        55
Trp Ile Pro Arg Gly Asn Gly Gly Phe Pro Ile Gln Ser Phe Arg Val
                                        75
Glu Tyr Lys Lys Leu Lys Lys Val Gly Asp Trp Ile Leu Ala Thr Ser
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Ala Ile Pro Pro Arg
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tgtgtcctcc gtgcccccg agtggcctgc tagcccgctc tcccacacag tctccttgat
120
gtgaagtgtc acceggcttg ctgcggcgtg tctccgccgt aacacgtgta taccggctca
gccatggcgg cggctgctgg gaaggctcct gcgtatggct ttgccatccg ggacccgggc
tttgctctgc aggggtgggc ttctgagcag aggaaggcca gaggtaacca ggtccatgca
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ccatgagete cacaggttee tgaggga
387
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<211> 121
<212> PRT
<213> Homo sapiens
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Met Ala Phe Val Thr Glu Thr Lys Ser Ile His Lys Ser Pro Thr Leu
Trp Lys Asp Thr Asn Val His Gly Pro Gly Tyr Leu Trp Pro Ser Ser
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20
                                 25
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Ala Gln Lys Pro Thr Pro Ala Glu Gln Ser Pro Gly Pro Gly Trp Gln
                             40
Ser His Thr Gln Glu Pro Ser Gln Gln Pro Pro Pro Trp Leu Ser Arg
                         55
Tyr Thr Arg Val Thr Ala Glu Thr Arg Arg Ser Lys Pro Gly Asp Thr
Ser His Gln Gly Asp Cys Val Gly Glu Arg Ala Ser Arg Pro Leu Gly
                                     90
Gly His Gly Gly His Arg Glu Arg Leu Gln Trp Gln Ser Arg Pro Gly
            100
Asp Arg Asp Pro Pro Arg Gly Asp Ala
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                            120
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<212> DNA
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120
ctcatcagca gccctggaga tgacaaagat agtgctgagg gggaacagac cttcgtcatc
agttaaagat atgctagctt ttctttttct tccaqacatt cctqaatcca qaqaactttc
ctgtaatgcg tcaaatcctt taggtctcaa ttctttccct agagagacaa ggagcacagt
tegtteccaa ggccccccat gettggegag ggcgtetetg etttecagge agggteetge
tgcctccacc cacgtgcagg gaaaggaagg acgcgt
396
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<211> 105
<212> PRT
<213> Homo sapiens
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Met Thr Arg Leu Asn Pro Lys Ser Leu Gln Leu Cys Val Ile Ser Ser
Ala Ala Leu Glu Met Thr Lys Ile Val Leu Arg Gly Asn Arg Pro Ser
Ser Ser Val Lys Asp Met Leu Ala Phe Leu Phe Leu Pro Asp Ile Pro
Glu Ser Arg Glu Leu Ser Cys Asn Ala Ser Asn Pro Leu Gly Leu Asn
Ser Phe Pro Arg Glu Thr Arg Ser Thr Val Arg Ser Gln Gly Pro Pro
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                                        75
Cys Leu Ala Arg Ala Ser Leu Leu Ser Arg Gln Gly Pro Ala Ala Ser
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Thr His Val Gln Gly Lys Glu Gly Arg
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105

100

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caagaaaggc cgggcatgct ttctaaacac agccacagga ggcttgtagg gcatcttcca
  1740
  ggtggggaaa cagtettaga taagtaaggt gaettgeeta aggeeteeca geaceettga
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  aaaacaaaca ttataaaacg aaaaaaaaaa aaaaaaaaag tact
  1904
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  <213> Homo sapiens
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 Val Pro Tyr Thr Ser Glu His Val Pro Ser Arg Tyr His Glu Trp Met
                                  25
 Lys Ser Glu Glu Leu Gln Arg Leu Thr Ala Ser Glu Pro Leu Thr Leu
                              40
 Glu Gln Glu Tyr Ala Met Gln Cys Ser Trp Gln Glu Asp Ala Asp Lys
 Cys Thr Phe Ile Val Leu Asp Ala Glu Lys Trp Gln Ala Gln Pro Gly
 Ala Thr Glu Glu Ser Cys Met Val Gly Asp Val Asn Leu Phe Leu Thr
                 85
 Asp Leu Glu Asp Pro Thr Leu Gly Glu Ile Glu Val Met Ile Ala Glu
                                 105
 Pro Ser Cys Arg Gly Lys Gly Leu Gly Thr Glu Ala Val Leu Ala Met
         115
                             120
 Leu Ser Tyr Gly Val Thr Thr Leu Gly Leu Thr Lys Phe Glu Ala Lys
                         135
Ile Gly Gln Gly Asn Glu Pro Ser Ile Arg Met Phe Gln Lys Leu His
                     150
                                         155
Phe Glu Gln Val Ala Thr Ser Ser Val Phe Gln Glu Val Thr Leu Arg
                 165
                                     170
                                                         175
Leu Thr Val Ser Glu Ser Glu His Gln Trp Leu Leu Glu Gln Thr Ser
            180
                                 185
His Val Glu Glu Lys Pro Tyr Arg Asp Gly Ser Ala Glu Pro Cys
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                             200
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<211> 509
<212> DNA
<213> Homo sapiens
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gatgtcatcg tgctgcggtt ttccggagcc atggcgaagc gtcctgcctc agttatcctt
ccgctgctac tgtcggactc ccccgtcatt gcgtggtggc ccttctccgg ccctgacaac
180
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ctcgcctcgg accccatcgg agcccttgcg gaccgccgca tcaccgactc ggcagctgac
240
aaagatccgt gcaaagccct catacgccgt gcggctcacc taaccgaggg tgactccgac
300
ctgtgttggg ctcgcaccac cagctggaga gccctagctg cagcagcttt ggatcaacat
ccagcgaccg tcaagttcgc tcgggtagag tcagccgccg gtaatgcgcc ggcgatgctg
420
ctggcagcct ggctaggatt gcgtctcggc gtcccggtcg agcgggtgac aaccgacgcg
cccggcatct ccgcgatcgt catgtcgac
509
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<211> 169
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Thr Arg Ser Arg Lys Asp Lys Leu Asp Ala Glu Val His Ala Gly Glu
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                                    10
Gly Thr Pro Gly Asp Val Ile Val Leu Arg Phe Ser Gly Ala Met Ala
            20
                                25
Lys Arg Pro Ala Ser Val Ile Leu Pro Leu Leu Ser Asp Ser Pro
Val Ile Ala Trp Trp Pro Phe Ser Gly Pro Asp Asn Leu Ala Ser Asp
                                            60
Pro Ile Gly Ala Leu Ala Asp Arg Ile Thr Asp Ser Ala Ala Asp
                                        75
                    70
Lys Asp Pro Cys Lys Ala Leu Ile Arg Arg Ala Ala His Leu Thr Glu
                85
                                    90
Gly Asp Ser Asp Leu Cys Trp Ala Arg Thr Thr Ser Trp Arg Ala Leu
                                105
                                                    110
Ala Ala Ala Leu Asp Gln His Pro Ala Thr Val Lys Phe Ala Arg
                            120
Val Glu Ser Ala Ala Gly Asn Ala Pro Ala Met Leu Leu Ala Ala Trp
                        135
                                            140
Leu Gly Leu Arg Leu Gly Val Pro Val Glu Arg Val Thr Thr Asp Ala
                    150
                                        155
Pro Gly Ile Ser Ala Ile Val Met Ser
                165
<210> 2539
<211> 453
<212> DNA
<213> Homo sapiens
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tegeggeatg accegaggat agtgacgtgg gacaatgget acgtgegttt teteaacgag
cagoogaact acgacotgac gtatgacgac gtottcatgg caccaaaccg ttootcggtg
180
```

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gggtcccgca tgaacgtcga cetcacgtca acagacggge taggcactce tetgececte
gtagtggcca atatgaccgc aatttccgga cgtcgcatgg cagagaccat cgccaggcgc
300
ggaggcattg ctgttctgcc ccaagatatc ccggcggatt tcgtcgcccg gtccattcgg
cgcgtcaaag atgcgcatac tcgattcgac accccagtca ccgtcaaccc gacaacgact
gtcggtgagg ccatgaactt gctcaacaag cgc
453
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<211> 134
<212> PRT
<213> Homo sapiens
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Phe Ala Ala Ser Arg His Asp Pro Arg Ile Val Thr Trp Asp Asn Gly
                                    10
Tyr Val Arg Phe Leu Asn Glu Gln Pro Asn Tyr Asp Leu Thr Tyr Asp
Asp Val Phe Met Ala Pro Asn Arg Ser Ser Val Gly Ser Arg Met Asn
                            40
Val Asp Leu Thr Ser Thr Asp Gly Leu Gly Thr Pro Leu Pro Leu Val
                        55
    50
Val Ala Asn Met Thr Ala Ile Ser Gly Arg Arg Met Ala Glu Thr Ile
                                         75
                    70
Ala Arg Arg Gly Gly Ile Ala Val Leu Pro Gln Asp Ile Pro Ala Asp
                                     90
                85
Phe Val Ala Arg Ser Ile Arg Arg Val Lys Asp Ala His Thr Arg Phe
                                 105
             100
Asp Thr Pro Val Thr Val Asn Pro Thr Thr Thr Val Gly Glu Ala Met
                             120
        115
 Asn Leu Leu Asn Lys Arg
    130
 <210> 2541
 <211> 564
 <212> DNA
 <213> Homo sapiens
 <400> 2541
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 ecetgeatgg aacceattge agggeacacg cagtetacat gtateceagg ttttatgete
 acagageetg caatacteeg tgtetggaat aegttatttg etgeacacet eecagaggaa
 catgtaacgt ctgtgtaaca tgctatcctg cacacatctg aaagaatctg tgtacacaac
 actattatgc tgtgcacaca tttcctcata ttctgtgtag agagcacctc attttgtact
 caaatattcg gcttccataa caagttacat tgctcacatc ttaaaatatt cattacacgt
 360
```

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gaaaccaccg catggtaccg acatccttct ggaatgtccc gcacagaggc tgatatatgt
420
geacagttct cactgttctg cgtgcccagc ccctcacact ggacgcccac ctcacactct
totgocaagg gagactttgg ttotcocott cootgtgotg gotgtgoggg coacagtoot
ctgcacgcca gcagcatgac gcgt
564
<210> 2542
<211> 106
<212> PRT
<213> Homo sapiens
<400> 2542
Met Leu Cys Thr His Phe Leu Ile Phe Cys Val Glu Ser Thr Ser Phe
                                     10
                                                         15
Cys Thr Gln Ile Phe Gly Phe His Asn Lys Leu His Cys Ser His Leu
Lys Ile Phe Ile Thr Arg Glu Thr Thr Ala Trp Tyr Arg His Pro Ser
                                                 45
Gly Met Ser Arg Thr Glu Ala Asp Ile Cys Ala Gln Phe Ser Leu Phe
                        55
Cys Val Pro Ser Pro Ser His Trp Thr Pro Thr Ser His Ser Ser Ala
                                        75
Lys Gly Asp Phe Gly Ser Pro Leu Pro Cys Ala Gly Cys Ala Gly His
                85
                                     90
Ser Pro Leu His Ala Ser Ser Met Thr Arg
            100
<210> 2543
<211> 387
<212> DNA
<213> Homo sapiens
<400> 2543
cgcctgaagg gggcggggaa aatggaatgg gggggaaggg cgcgggtggg gacatgctgg
60
aacgtgccca tgctttctgc accacactgg atgactgaag gggaaggaac gagcgtctta
ccgctcctga tgagattttt gtttttgcct aacaaagaaa tgtgtatgaa tgcacgtctg
180
tttgcagggg cagggaggag gagggtcctt ggaatagctg ccgacaacag ctggaactcc
240
tgtctgggtc ccccagctgg gctagagagg gcagtgatca tctgtccact ggacaggaag
gtttgcaaag ggctgtttgc ttactgggtc ccaattttta gccttctgaa gcccctgtcc
360
aatggggccc agcaggcagc agtgctg
387
<210> 2544
<211> 122
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70
                                          75
 Val Ile Ile Val Gly Ser Val Val Ser Ala Ala Tyr Ala Leu Leu Ser
                                      90
 Asp Leu Lys Leu Val Lys Ser Ala Leu Thr Lys Pro Phe Lys Thr Gly
             100
                                 105
 <210> 2547
 <211> 556
 <212> DNA
 <213> Homo sapiens
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tatggccaat aatattatgc ccaagctaca acattccgag tcaatcacaa aggttataaa
cttcatttga actgaagacc acctgtaagc acgcagctca aatgttctca cctagaaatt
240
caagttgtgt ttggaaagtg gacttaacgg tcaaagaaaa aggcctggcc aacttcagag
300
agggacaccc agccctgcta cgttgcgtgt cattatgtgg tgctgtgcta tccatagaga
360
aagaggagat gaaaaagatt ctacaaagag agatcaaact gcaagaaagc acaaagattt
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tatcagatca tctaga
556
<210> 2548
<211> 106
<212> PRT
<213> Homo sapiens
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Met Asn Leu Arg Ile Lys Phe Glu Ala Asn Lys Ile Ile Pro Asp Arg
Ile Asp Gly Ile Ser Tyr Trp Asp Leu Lys Lys Ser Phe Ile Pro Arg
Arg Pro Ser Tyr Cys Gly Asp Glu Ile Phe Val Leu Ser Cys Ser Leu
Ile Ser Leu Cys Arg Ile Phe Phe Ile Ser Ser Phe Ser Met Asp Ser
Thr Ala Pro His Asn Asp Thr Gln Arg Ser Arg Ala Gly Cys Pro Ser
                    70
Leu Lys Leu Ala Arg Pro Phe Ser Leu Thr Val Lys Ser Thr Phe Gln
                85
Thr Gln Leu Glu Phe Leu Gly Glu Asn Ile
            100
                                105
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65

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<211> 435
<212> DNA
<213> Homo sapiens
<400> 2549
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gctaaatcgg gcacctcttc tttcttagag caattgagtg gcgatcagaa aaaagacagc
caacttattg gtcaattcgg tgtaggcttt tactctgctt tcatcgttgc tgataaagta
acagtagaaa cacqtcqcqc aggtqcgacq gaaaatgaag cggttcgctg ggtatctgat
ggttctggtg aatttactat tgagacgatc gataaagcga ctcgtggtac acgcattact
ttgcatctga aagcagatga aaaagatttc gcagacaact tccgtctacg ttcattagta
420
acaaaatatt ctgat
435
<210> 2550
<211> 145
<212> PRT
<213> Homo sapiens
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Xaa Gln Pro Leu Ser Asp Arg Val Arg Ile Glu Phe Asp Lys Glu Ala
                5
Asn Thr Val Val Ile Asp Asp Asn Gly Val Gly Met Ser Arg Glu Glu
                                25
Ala Ile Thr Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Ser Ser Phe
Leu Glu Gln Leu Ser Gly Asp Gln Lys Lys Asp Ser Gln Leu Ile Gly
                        55
Gln Phe Gly Val Gly Phe Tyr Ser Ala Phe Ile Val Ala Asp Lys Val
                                        75
Thr Val Glu Thr Arg Arg Ala Gly Ala Thr Glu Asn Glu Ala Val Arg
                85
                                    90
Trp Val Ser Asp Gly Ser Gly Glu Phe Thr Ile Glu Thr Ile Asp Lys
                                105
           100
Ala Thr Arg Gly Thr Arg Ile Thr Leu His Leu Lys Ala Asp Glu Lys
                           120
Asp Phe Ala Asp Asn Phe Arg Leu Arg Ser Leu Val Thr Lys Tyr Ser
                                           140
    130
                      135
Asp
145
<210> 2551
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<212> DNA
<213> Homo sapiens
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ggactccact tctggggacg cctggttcgt tcgcccacca ggcctaggct acgctccatg
ctccccage aatetetgte tacacetect geggegeett geeetectee gacecettte
cagccannaa gtccccccac cccttcagag aagcaqcctc aaattccaga agtggaggct
ccagcctccc cgcgaggtac cagccccaca gtcttctggg agccattgtg gccagggacq
gcctctggac tgccaggctg ggttggggac cagggaacat cggtctactc aggtgtgagg
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403
<210> 2552
<211> 134
<212> PRT
<213> Homo sapiens
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Xaa Pro Ala Ser Leu Thr Ser Val Ser Pro Pro Arg Gly Arg Leu Ser
 1
                 5
                                     10
Thr Leu Asn Arg Gly Leu His Phe Trp Gly Arg Leu Val Arg Ser Pro
                                 25
Thr Arg Pro Arg Leu Arg Ser Met Leu Pro Gln Gln Ser Leu Ser Thr
                             40
Pro Pro Ala Ala Pro Cys Pro Pro Pro Thr Pro Phe Gln Pro Xaa Ser
Pro Pro Thr Pro Ser Glu Lys Gln Pro Gln Ile Pro Glu Val Glu Ala
                    70
                                         75
Pro Ala Ser Pro Arg Gly Thr Ser Pro Thr Val Phe Trp Glu Pro Leu
Trp Pro Gly Thr Ala Ser Gly Leu Pro Gly Trp Val Gly Asp Gln Gly
            100
                                105
Thr Ser Val Tyr Ser Gly Val Arg Gly Gln Val Trp Pro Ala Pro Lys
        115
                            120
                                                 125
Leu Ala Pro Ser Trp Thr
    130
<210> 2553
<211> 380
<212> DNA
<213> Homo sapiens
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actagtgtcc ctataagaaa aggaaaggac caagacacag gaaagatgaa gcagagattg
gagagataca gcatgggcca aggagcactg ggagccagca gcagctggaa gaggcaggag
120
gcatcctccc tagaccgcac aggatgctac tgggtgagcc tgctgtcctg gaaaaggcgt
180
```

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gaagtetgee tgagtgggea ggggettetg egeageacee ageaaggeea aggtggaagg
gaccetectg geceetgice tggetecace eteagetget ggeaggiggg teaccaggee
tetgeccaaa gaaaeteetg caggeagete tggaceeeet gtettacaca eetteteaet
gagcctgcca gcatcccagn
380
<210> 2554
<211> 111
<212> PRT
<213> Homo sapiens
Met Lys Gln Arg Leu Glu Arg Tyr Ser Met Gly Gln Gly Ala Leu Gly
                                     10
Ala Ser Ser Ser Trp Lys Arg Gln Glu Ala Ser Ser Leu Asp Arg Thr
Gly Cys Tyr Trp Val Ser Leu Leu Ser Trp Lys Arg Arg Glu Val Cys
            20
                             40
 Leu Ser Gly Gln Gly Leu Leu Arg Ser Thr Gln Gln Gly Gln Gly
                         55
 Arg Asp Pro Pro Gly Pro Cys Pro Gly Ser Thr Leu Ser Cys Trp Gln
                                         75
                     70
 Val Gly His Gln Ala Ser Ala Gln Arg Asn Ser Cys Arg Gln Leu Trp
                                     90
                 85
 Thr Pro Cys Leu Thr His Leu Leu Thr Glu Pro Ala Ser Ile Pro
                                  105
             100
 <210> 2555
 <211> 368
 <212> DNA
 <213> Homo sapiens
 ntccggatgg aaaagtaaag accagcaata gccaataacg ccattaacac atacccatat
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  ggatttatat cotcocatat cotcattttt gtgctcgttg gcctcggcat tgtctttacc
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Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly

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Lys Thr Val Leu Ile Gln Glu Leu Ile Arg Asn Ile Ala Thr Glu His
Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly
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Asn Asp Leu Trp Val Glu Met Lys Glu Ser Gly Val Ile Ala Lys Thr
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Ala Leu Val Phe Gly Gln Met Asn
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Glu His Ser Lys Asp Leu Lys Leu Leu His Leu Glu Val Met Asn Leu
Arg Gln Gln Leu Arg Ala Val Lys Glu Glu Glu Asp Lys Ala Gln Asp
Glu Val Gln Arg Leu Thr Ala Thr Leu Lys Ile Ala Ser Gln Thr Lys
                    70
                                        75
Lys Asn Ala Ala Ile Ile Glu Glu Glu Leu Lys Thr Thr Lys Arg Lys
Met Asn Leu Lys Ile Gln Glu Leu Leu Glu Met Thr Ser Phe Pro Ser
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Trp Leu Lys Lys Ile Arg Thr Cys Arg Ile Ser Phe Asn Arg Asn Met
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Lys
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420
attgtcgac
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Ser Thr Gly Arg Met Trp Ser His Leu Asn Arg Leu Leu Phe Trp Ser
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Ile Phe Ser Ser Val Thr Cys Arg Lys Ala Val Leu Asp Cys Glu Ala
                            40
Met Lys Thr Asn Glu Phe Pro Ser Pro Cys Leu Asp Ser Lys Thr Lys
Val Val Met Lys Gly Gln Asn Val Ser Met Phe Cys Ser His Lys Asn
                                        75
Lys Ser Leu Gln Ile Thr Tyr Ser Leu Phe Arg Arg Lys Thr His Leu
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Gly Thr Gln Asp Gly Lys Gly Glu Pro Ala Ile Phe Asn Leu Ser Ile
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Thr Glu Ala His Glu Ser Gly Pro Tyr Lys Cys Lys Ala Gln Val Thr
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cactacacaa qgcagggcct ccagcgg
267
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Val Thr Ile Thr Ser His Val Leu Lys Ala Phe Thr Leu Trp Glu Gln
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Ala Glu Ala Leu Thr Arg Lys Asn Lys Glu Phe Phe Ala Gln Leu Ser
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Thr Lys Val Arg Val Leu Ala Leu Asn Ser Ser Leu Val Asp Leu Val
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His Tyr Thr Arg Gln Gly Leu Gln Arg
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333
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## <213> Homo sapiens <400> 2566 Leu Arg Thr Ala Pro Arg Val Leu Gly Gly Val Ser Thr Ala Arg Lys Leu Ser His Val Trp Phe Glu Phe Asp Ser Leu Val Asn Ala Arg Asp 20 Val Gly Gly Ile Pro Thr Pro Asp Gly Pro Val Lys Ser Gln Arg Leu Ile Arg Ser Asp Asn Leu Gln Ala Leu Thr Glu Ala Asp Ile Ala Gln Leu Gln Gln Leu Gly Val Ser Asp Val Val Asp Leu Arg Ser Thr Tyr Glu Val Ala Ser Glu Gly Pro Gly Pro Leu Thr Gly Arg Gly Val Thr 90 Ile His Pro His Ser Phe Leu Pro Asp Gln His Ala Asn Val His 100 105 <210> 2567 <211> 396 <212> DNA <213> Homo sapiens <400> 2567 ngaattcaaa ctggtgttcg tatgggccat aagcaaggta catatacgat gcgttttaga agccagttca cagatcaacg totattcgga accgatcaat ttagtattgg tgggcgctat tctgtacgag gttttagtgg agaagaaacc ttaagaggtg actcgggcta ttatgtacaa aatgaatggg cattaccatt tagaaaacaa caaattactc catatgtagg gatagatatt ggacatgtat gggggccatc tacagaaact caattaggta ataccttaat tggtggtgta 300 gttggtgtac gtggtatggt tggtgacgat gtaaactatg atgtatcact aggaacacca attaagaaac cagaaggttt tgatacagat acgcgt 396 <210> 2568 <211> 132 <212> PRT <213> Homo sapiens <400> 2568 Xaa Ile Gln Thr Gly Val Arg Met Gly His Lys Gln Gly Thr Tyr Thr Met Arg Phe Arg Ser Gln Phe Thr Asp Gln Arg Leu Phe Gly Thr Asp 25 Gln Phe Ser Ile Gly Gly Arg Tyr Ser Val Arg Gly Phe Ser Gly Glu Glu Thr Leu Arg Gly Asp Ser Gly Tyr Tyr Val Gln Asn Glu Trp Ala

Leu Pro Phe Arg Lys Gln Gln Ile Thr Pro Tyr Val Gly Ile Asp Ile

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70
Gly His Val Trp Gly Pro Ser Thr Glu Thr Gln Leu Gly Asn Thr Leu
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Ile Gly Gly Val Val Gly Val Arg Gly Met Val Gly Asp Asp Val Asn
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                                                    110
Tyr Asp Val Ser Leu Gly Thr Pro Ile Lys Lys Pro Glu Gly Phe Asp
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Thr Asp Thr Arg
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Phe Tyr Ser Ala Tyr Leu Val Ala Asp Arg Val Val Thr Thr Lys
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His Asn Asp Asp Glu Gln Tyr Val Trp Glu Ser Gln Ala Gly Gly Ser
                            40
Phe Thr Val Thr Arg Asp Thr Ser Gly Glu Gln Leu Gly Arg Gly Thr
Lys Ile Thr Leu Phe Leu Lys Asp Gln Leu Glu Tyr Leu Glu Glu
Arg Arg Leu Lys Asp Leu Val Lys Lys His Ser Glu Phe Ile Ser Tyr
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Pro Ile Ser Leu Trp Thr Glu Lys Thr Thr Glu Lys Glu Ile
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Gly Thr Thr Ala Ile Asp Gln Val Glu Lys Gln Arg Glu Asp Gly Ser
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Ser Tyr Phe Glu Thr Thr Ile Thr Phe Glu Asp Gly Ser Thr Val Thr
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Gly Asp Ala Phe Leu Val Ala Thr Gly Arg Thr Pro Asn Thr Asp Arg
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360
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Arg Arg Cys Arg His Trp His Asp Glu Gly His His Arg Glu Glu Asn
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Gly His His Ser Gln Thr Thr Ser Ser Gln Lys Ser Glu Asp Glu Gly
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Asp Asp Gly Asp Asp Gln Ser Arg Tyr Ser Gln Arg Ser His Gln Asn
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Leu	Asp	35 Va	5 1 V	al A	Ala	Gly	Se	r V	al '	Thr	٧a	1 I	Leu	Ser	Gl	y F	Arg	Ar	g G	ly
	370						37	5 _		~ 1	<b>~</b> 1		73.4	380 #is	Pr	o F	Pro	Gl	y T	yr
Thr																				
385 Thr		_		٦.	C ~ ~	390	T.e	0 S	er	Ara	Le	eu (	Glu	Asp	Ar	g	Phe	As	n S	er
Thr	Lau	G)	v P	20	Ser	Glu	Gl	u G	ln	Glu	G]	lu :	Ser	Trp	Pı	0.0	Gly	Al	a E	ro
Gly	Gly	Le	u S	er	His	Trp	Le	u F	ro	Ala	A.	la.	Arg	Gly	' Al	rg 15	Leu	GI	·u·	3111
Leu																				
	450	_			Glu	Gln	Va	)) 	Ala	Glv	, A	la	Met	Glr	ı A	la	Cys	G]	Ly (	Gln
465	CVS	Se	er (	Glv	Ala	Pro	Gl	Ly (	Glu	Glr	ı A	sp	Ser	Glı	ı V	al	Ser	· G:	lu	Ile
Leu	Ser	A.	la I	Leu	485 Glu	Arg	ιA	rg '	Val	Lev	ı A	sp	Ser	GI	ננ	тУ	510	יידי	- 4	n+ 9
			!	500	Gly	_			mh ~	505		111	Δla	Al	a G	lv	Glu	1 A	la	Arg
		5 	15	T 011	Glu	Gly	z Le	eu	Gln	Gli	ı V	al	Val	Gl	y A	ırg	Let	ı G	ln	Asp
Ara	r Va	J 1 A	sp.	Ala	Gln	As	o G	lu	Thr	Ala	a A	Ala	Glu	Ph	e T	hr	Let	ı A	rg	560
Asr	ı Le	u T	hr	Ala	Ala	Ar	g L	eu	Gly	G1:	n i	Leu 570	GIL	1 61	У	Jeu	20,	5	75	
	_			-1.	565		- C	117	Δla	Cv	s (	Glv	Gly	, Va	1 (	Gln	Gl	u G	lu	Leu
C1,	. Ar	a I	.eu	Ara	Ast	G1	y V	al	Glu	Ar	g	Cys	Sei	c Cy	's !	Pro	Le	u I	eu	Pro
GI	y Al	9 5	95				-		600	)						605	۲.	~ 7	\ <b>~~</b>	Glv
Pro	o Ar	g	Sly	Pro	Gl	/ Al	a G	ly	Pro	Gl	У	Val	GI	y G1 62	- Y > O	PIO	36		9	Gly
																				Leu 640
62	5 11	ͺ,	( ( ) )	Glr	- G1	v Gl	u I	Leu	Sei	c G1	Lu	Val	. 11	e L	≘u	Ser	Ph	e s	Ser	Ser
Le	u As	sn.	Asp	Sei	r Le	u As	n (	Glu	Le	ı Gl	ln	Thr	Th	r V	al	Glu	ı GI	.у ч	σĮΠ	Gly
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																				Glu
G1	6 11 A	7U 7U	Phe	Ar	g G1	y L	eu ·	Glu	Gl	u G	ly	Gl	n Al	a G	ln	Ala	a G	ly	Glr	Cys 720
Pi	ro S	er	Leu	Gl	u Gl	уА	rg	Lev	Gl	у А	rg	Le	u Gl	Lu G	тЛ	va.	ı ()	ys	735	a Arg
																				ı Se
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c.	ar C	יו וי	/DE	c G1	n A	la A	la	Lev	ı Le	eu G	lu	Ly	s L	eu 1	/al	Gl	yG	ly	Gl	n Al
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Lys Arg Phe Phe Phe Ile Val Phe Thr Asp Ala Leu Cys Trp Ile Pro
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Cys	Phe 610	Val	Lys	Gln	Leu	Glu 615	Ile	Pro	Gln	Tyr	Gly 620	Tyr	Arg	Asn	Asn
Val 625	Pro	Thr	Thr	Thr	Pro 630	Arg	Ser	Asn	Leu	Ala 635	Lys	Glu	Leu	Glu	Lys 640
•	Ser	•		645			•		650	-	_			655	-
_	Lys	_	660				_	665					670		
-	Gly	675					680					685			
	Ser 690					695					700				
705	Gly	•	-		710					715					720
	Tyr			725					730					735	
	Asn		740					745					750		
-	Pro	755	_		-		760	•				765			
	770					775					780				
785	Cys	-			790					795					800
	Ala			805					810					815	
_	Asp		820					825					830		
	Asp	835					840					845			
	Ala 850					855					860				
865	Lys		•	-	870		-			875					880
	Leu			885					890					895	
	Thr		900					905					910		
	Gly	915					920					925			
	Pro 930					935					940				
945	Lys				950					955					960
	Gln			965					970					975	
Gly	Cys	Pro	Leu	Ala	Ala	Lys	Arg	Gln	Lys	Asp	Gly	Tyr	ren	Asn	Gly

985

980

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Ser Gln Phe Ser Trp Lys Ser Val Lys Thr Glu Gly Met Ser Cys Pro
                            1000
                                                1005
Thr Pro Gly Cys Asp Gly Ser Gly His Val Ser Gly Ser Phe Leu Thr
                        1015
                                            1020
His Arg Ser Leu Ser Gly Cys Pro Arg Ala Thr Ser Ala Met Lys Lys
                    1030
                                        1035
Ala Lys Leu Ser Gly Glu Gln Met Leu Thr Ile Lys Gln Arg Ala Ser
                                   1050
                1045
Asn Gly Ile Glu Asn Asp Glu Glu Ile Lys Gln Leu Asp Glu Glu Ile
                               1065
Lys Glu Leu Asn Glu Ser Asn Ser Gln Met Glu Ala Asp Met Ile Lys
        1075
                            1080
                                                1085
Leu Arg Thr Gln Ile Thr Thr Met Glu Ser Asn Leu Lys Thr Ile Glu
                       1095
                                           1100
Glu Glu Asn Lys Val Ile Glu Gln Asn Glu Ser Leu Leu His Glu
                   1110
                                        1115
Leu Ala Asn Leu Ser Gln Ser Leu Ile His Ser Leu Ala Asn Ile Gln
                1125
                                    1130
Leu Pro His Met Asp Pro Ile Asn Glu Gln Asn Phe Asp Ala Tyr Val
                                1145
            1140
                                                    1150
Thr Thr Leu Thr Glu Met Tyr Thr Asn Gln Asp Arg Tyr Gln Ser Pro
                            1160
                                                1165
Glu Asn Lys Ala Leu Leu Glu Asn Ile Lys Gln Ala Val Arg Gly Ile
                        1175
Gln Val
1185
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<212> DNA
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ccaagagccc agggatcgcc tcgctgacag accccaaaac acgggccacg ccaccccgtc
ctctaggtac ctgtgccccc agtctcaagc atcactccgt gtctccctca catgccttct
gggcctctag ccctcaaaga gctaaagtat gtgagcactt tctcagccct ttaaacggat
taagtcatgt catcctcaca aggctgctgt gttttattac ctctgtttca ggtgcaagtc
atccccggga ggagtggtgg ggatgccgcc tgaccctggg ccacctggct gcagcatctg
tgttgatgac caccetectg ceteaggett tgeteetgaa tgttettget etetaggtet
gtccgctcct ggccctgctc ttcttaactc cgttcaagcc ccctgggtca cacgtccatg
ctcatcactt caatgacgcg gatgctggcg atccccaaat ctcctaatcc aagtgcagat
540
ct
542
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<210> 2586
<211> 122
<212> PRT
<213> Homo sapiens
Met Pro Ser Pro Ala Lys Ser Pro Gly Ile Ala Ser Leu Thr Asp Pro
<400> 2586
                                    10
Lys Thr Arg Ala Thr Pro Pro Arg Pro Leu Gly Thr Cys Ala Pro Ser
                                25
Leu Lys His His Ser Val Ser Pro Ser His Ala Phe Trp Ala Ser Ser
                            40
Pro Gln Arg Ala Lys Val Cys Glu His Phe Leu Ser Pro Leu Asn Gly
                        55
Leu Ser His Val Ile Leu Thr Arg Leu Cys Phe Ile Thr Ser Val
                    70
Ser Gly Ala Ser His Pro Arg Glu Glu Trp Trp Gly Cys Arg Leu Thr
                                     90
Leu Gly His Leu Ala Ala Ala Ser Val Leu Met Thr Thr Leu Leu Pro
                                 105
            100
Gln Ala Leu Leu Leu Asn Val Leu Ala Leu
                             120
        115
<210> 2587
 <211> 435
 <212> DNA
 <213> Homo sapiens
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 geccagggeg etggagaceg catggatgag gtcatgaagg aggtgeegeg egttegtaag
 gatgccggct accegecgct ggtcaceceg tegteccaga tegtggggaac ccaggeggtg
 ttcaacgtct tgatgggcaa tggttcgtac aagaatctca ctgccgagtt tgccgacctc
 atgctcggct actacggcaa gcccattggc gagctcaatc ctgagatcgt cgagatggcc
 aagaagcaga ccggcaagga gccgatcgac tgccgtcccg ccgacttgct cgagcctgag
 tgggatcagt tggtcgagca ggccaagagt cttgagggct tcgacggctc cgacgaggac
  420
 gttcttacca acgcg
  435
  <210> 2588
  <211> 145
  <212> PRT
  <213> Homo sapiens
  Xaa Asn Ile His Ala Ala Ile Pro Gly Gly Met Leu Ser Asn Met Glu
  <400> 2588
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10
Ser Gln Leu Glu Ala Gln Gly Ala Gly Asp Arg Met Asp Glu Val Met
            20
Lys Glu Val Pro Arg Val Arg Lys Asp Ala Gly Tyr Pro Pro Leu Val
Thr Pro Ser Ser Gln Ile Val Gly Thr Gln Ala Val Phe Asn Val Leu
                        55
Met Gly Asn Gly Ser Tyr Lys Asn Leu Thr Ala Glu Phe Ala Asp Leu
                    70
Met Leu Gly Tyr Tyr Gly Lys Pro Ile Gly Glu Leu Asn Pro Glu Ile
                                    90
Val Glu Met Ala Lys Lys Gln Thr Gly Lys Glu Pro Ile Asp Cys Arg
            100
                                105
Pro Ala Asp Leu Leu Glu Pro Glu Trp Asp Gln Leu Val Glu Gln Ala
                            120
Lys Ser Leu Glu Gly Phe Asp Gly Ser Asp Glu Asp Val Leu Thr Asn
                                             140
                        135
    130
Ala
145
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<211> 366
<212> DNA
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ggcgatccgg ttgagcagat cagagcgctg accaggggcc gcggcgtcga tttcgcgatc
gaggtegteg geategtega ggteatggag caggeetaet gggeggegeg acgeggege
acgategtet acgtegggge getgggeate gaegecaage tggteetgee ggegaacgae
ctgcacggcg gcgccaagac gatcatcggc tgcgccaacg gattgggcgc agtgcgcacc
gactatgcca agatgatete getggtegag aceggaegge tggaeetggg egggatgate
360
acgcgt
366
<210> 2590
<211> 122
<212> PRT
<213> Homo sapiens
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Pro Ala Lys Lys Asp Met Ala Met Val Phe Gly Ala Thr His Tyr Val
                                     10
Asp Pro Thr Ala Gly Asp Pro Val Glu Gln Ile Arg Ala Leu Thr Arg
                                25
Gly Arg Gly Val Asp Phe Ala Ile Glu Val Val Gly Ile Val Glu Val
        35
                            40
Met Glu Gln Ala Tyr Trp Ala Ala Arg Arg Gly Gly Thr Ile Val Tyr
```

```
Val Gly Ala Leu Gly Ile Asp Ala Lys Leu Val Leu Pro Ala Asn Asp
       Leu His Gly Gly Ala Lys Thr Ile Ile Gly Cys Ala Asn Gly Leu Gly
      Ala Val Arg Thr Asp Tyr Ala Lys Met Ile Ser Leu Val Glu Thr Gly
      Arg Leu Asp Leu Gly Gly Met Ile Thr Arg
                                  120
      <210> 2591
      <211> 341
      <212> DNA
     <213> Homo sapiens
     <400> 2591
     acgcgtaaag gcatgacete acettateat cagggteaca egtgtgttat tetggggetg
     agcagcccac gagttgtcca gcaccaggcc aggggtcagt cagcaatgag gacagctcct
    teetgeteea gggeaggeee tgggeaggge aatgetgggg acaeggtggg gagtaggeea
    cagcttctgt gggggagttc ctatggcagg aggatcatgc ccagcagcgt ggaagagcaa
    ggggtgaccc tgcactcgag gctcctggga agacggggag ggttgaggtt acatgaggga
   gaggggtcag ttggtgcatt cacagaacag cagggtggcc a
   <210> 2592
   <211> 109
   <212> PRT
   <213> Homo sapiens
  <400> 2592
  Met Thr Ser Pro Tyr His Gln Gly His Thr Cys Val Ile Leu Gly Leu
  Ser Ser Pro Arg Val Val Gln His Gln Ala Arg Gly Gln Ser Ala Met
 Arg Thr Ala Pro Ser Cys Ser Arg Ala Gly Pro Gly Gln Gly Asn Ala
 Gly Asp Thr Val Gly Ser Arg Pro Gln Leu Leu Trp Gly Ser Ser Tyr
 Gly Arg Arg Ile Met Pro Ser Ser Val Glu Glu Gln Gly Val Thr Leu
His Ser Arg Leu Leu Gly Arg Arg Gly Gly Leu Arg Leu His Glu Gly
Glu Gly Ser Val Gly Ala Phe Thr Glu Gln Gly Gly
                                105
<210> 2593
<211> 501
<212> DNA
<213> Homo sapiens
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<400> 2593
 cgcgtaaggc caccagaaga tttttatgca cagattccgt tgcttcgaga gctaatttcg
 gcgctttcat ggggttttat ggaggtggat gaatatgagg cggatgatat tatcggtacc
 120
 ttggcgcgcc aagcggatga agcgggggat tatatgactt atattgtgtc ttcggacctc
 gatatgctgc aaatcgtaga tgaaaacacc aagatgtatc gaattctgcg gggattttcg
 gatetegagg agatggatae tecagegatt gaagaaaaat atggaatett gaagtegeaa
 tttttggacc tgaaggcgct gaagggggat aattcggata atattccagg cgtaccaggg
attggtgaga aaaccgcagt gaaactcttg aatgagtatg gtagcttgga ggggatttat
aatcatatca aggaaatttc gggggcgaca cagaagaaat tgattgctgg acgcgaatca
gctgagatgt ctcttaagct t
501
<210> 2594
<211> 167
<212> PRT
<213> Homo sapiens
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Arg Val Arg Pro Pro Glu Asp Phe Tyr Ala Gln Ile Pro Leu Leu Arg
                                     10
Glu Leu Ile Ser Ala Leu Ser Trp Gly Phe Met Glu Val Asp Glu Tyr
            20
                                 25
Glu Ala Asp Asp Ile Ile Gly Thr Leu Ala Arg Gln Ala Asp Glu Ala
                             40
Gly Asp Tyr Met Thr Tyr Ile Val Ser Ser Asp Leu Asp Met Leu Gln
Ile Val Asp Glu Asn Thr Lys Met Tyr Arg Ile Leu Arg Gly Phe Ser
                                         75
Asp Leu Glu Glu Met Asp Thr Pro Ala Ile Glu Glu Lys Tyr Gly Ile
                                     90
Leu Lys Ser Gln Phe Leu Asp Leu Lys Ala Leu Lys Gly Asp Asn Ser
            100
                                105
Asp Asn Ile Pro Gly Val Pro Gly Ile Gly Glu Lys Thr Ala Val Lys
                            120
Leu Leu Asn Glu Tyr Gly Ser Leu Glu Gly Ile Tyr Asn His Ile Lys
                        135
Glu Ile Ser Gly Ala Thr Gln Lys Lys Leu Ile Ala Gly Arg Glu Ser
                                        155
                                                             160
Ala Glu Met Ser Leu Lys Leu
                165
<210> 2595
<211> 928
<212> DNA
<213> Homo sapiens
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<400> 2595
agatetteca gatgeaacaa tgateaatta agacaegegg egacatggtg geeeetgeet
cacccccag ggatacctgt aatacctgct teccaettea tgggetacaa teteatgetg
gtcacaattt ctggggctca ctcatataac accaacaaat gggatatttg tgaagaactt
cgcctgcggg agcttgaaga agtcaaggcc agagctgctc agatggaaaa gaccatgcgg
tggtggtcgg actgcactgc caactggaga gaaaaatgga gtaaagttcg agctgaaagg
aacagtgccg gaaaggaagg aagacaactc agaataaaac tagagatggc gatgaaagaa
teggatecae tgaaacagaa acagagtttg ecaetteaga aggaggeatt agaagetaat
gttacccagg atctgaagct tcctggcttc gtagaagaat cctgtgaaca tacagaccaa
tttcaattga gttcacaaat gcatgagtct atcagagagt atttggtaaa aagacaattt
tctacaaagg aggacacaaa taataaggaa caaggtgtgg ttattgattc tctaaaatta
agtgaggaga tgaagcccaa tctagatggt gttgatttat tcaacaatgg tggttctgga
aacggtgaaa cgaaaactgg gctgagactg aaagcaataa atctgccttt ggaaaatgaa
gtaactgaaa tttcagcttt gcaggtgcat ttggatgaat tccaaaaaat cttatggaag
gaaagagaaa tgcgcacagc tttggaaaaa gaaatagaga gactggagtc ggctttgtct
 ctgtggaagt ggaagtatga agaactgaaa gaatcaaagc caaaaaatgt gaaagagttt
 gacattette ttggtcaaca taatgatg
 <210> 2596
 <211> 309
 <212> PRT
 <213> Homo sapiens
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 Arg Ser Ser Arg Cys Asn Asn Asp Gln Leu Arg His Ala Ala Thr Trp
 Trp Pro Leu Pro His Pro Pro Gly Ile Pro Val Ile Pro Ala Ser His
                                  25
 Phe Met Gly Tyr Asn Leu Met Leu Val Thr Ile Ser Gly Ala His Ser
                              40
 Tyr Asn Thr Asn Lys Trp Asp Ile Cys Glu Glu Leu Arg Leu Arg Glu
 Leu Glu Glu Val Lys Ala Arg Ala Ala Gln Met Glu Lys Thr Met Arg
 Trp Trp Ser Asp Cys Thr Ala Asn Trp Arg Glu Lys Trp Ser Lys Val
                                      90
 Arg Ala Glu Arg Asn Ser Ala Gly Lys Glu Gly Arg Gln Leu Arg Ile
```

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100
                                 105
                                                     110
Lys Leu Glu Met Ala Met Lys Glu Ser Asp Pro Leu Lys Gln Lys Gln
        115
                             120
                                                 125
Ser Leu Pro Leu Gln Lys Glu Ala Leu Glu Ala Asn Val Thr Gln Asp
                        135
                                             140
Leu Lys Leu Pro Gly Phe Val Glu Glu Ser Cys Glu His Thr Asp Gln
                    150
                                         155
Phe Gln Leu Ser Ser Gln Met His Glu Ser Ile Arg Glu Tyr Leu Val
                                     170
Lys Arg Gln Phe Ser Thr Lys Glu Asp Thr Asn Asn Lys Glu Gln Gly
            180
                                 185
Val Val Ile Asp Ser Leu Lys Leu Ser Glu Glu Met Lys Pro Asn Leu
                             200
Asp Gly Val Asp Leu Phe Asn Asn Gly Gly Ser Gly Asn Gly Glu Thr
                        215
                                             220
Lys Thr Gly Leu Arg Leu Lys Ala Ile Asn Leu Pro Leu Glu Asn Glu
                    230
                                         235
Val Thr Glu Ile Ser Ala Leu Gln Val His Leu Asp Glu Phe Gln Lys
Ile Leu Trp Lys Glu Arg Glu Met Arg Thr Ala Leu Glu Lys Glu Ile
            260
                                265
                                                     270
Glu Arg Leu Glu Ser Ala Leu Ser Leu Trp Lys Trp Lys Tyr Glu Glu
        275
                            280
                                                 285
Leu Lys Glu Ser Lys Pro Lys Asn Val Lys Glu Phe Asp Ile Leu Leu
                        295
Gly Gln His Asn Asp
305
<210> 2597
<211> 631
<212> DNA
<213> Homo sapiens
<400> 2597
ccatgggtgg gaatgcaaga gacacactct agacttacta gaggagcaag agcaggactt
ggctgcacct gcagctgagg gttagcagga attaggagat aacagtagaa tagggctaga
120
ctgaaaaggc ctttgatgcc aggttaggaa atttacattt tatccacaaa atccaaatcc
180
tcctttaata atgagatgtc tttacaagtt tttqqqcaaq agtggtatgg ctgacctggt
gtcctgggaa ggaactgtgt ggggatggtg tgcaggactt acctagggtg ggaaaggcac
300
aagcagcatg gggctgtggc agctaccaga ggtaaaggga catttcaggg aaagacttgg
caggacaaga ccttccttgg atggatggat gaataccaga aacagggacc caagagaaag
gccgagtttc atagggagag aagatgggtc atgtatgagg catgttgagc ttgtactgat
480
ggtgagacgt ccagtcgaca gtactaccca ctggccagtg agaaatgtgg gaccagggtt
caggaggaaa ctggggccgg aaatgagcat ttggaaggcg ccagggtgga agcgggtggt
600
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tcactccacg agtgctattt cacttacgcg t
631
<210> 2598
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2598
Met Gly Leu Trp Gln Leu Pro Glu Val Lys Gly His Phe Arg Glu Arg
Leu Gly Arg Thr Arg Pro Ser Leu Asp Gly Trp Met Asn Thr Arg Asn
Arg Asp Pro Arg Glu Arg Pro Ser Phe Ile Gly Arg Glu Asp Gly Ser
                            40
Cys Met Arg His Val Glu Leu Val Leu Met Val Arg Arg Pro Val Asp
Ser Thr Thr His Trp Pro Val Arg Asn Val Gly Pro Gly Phe Arg Arg
                    70
Lys Leu Gly Pro Glu Met Ser Ile Trp Lys Ala Pro Gly Trp Lys Arg
Val Val His Ser Thr Ser Ala Ile Ser Leu Thr Arg
            100
<210> 2599
<211> 356
<212> DNA
<213> Homo sapiens
<400> 2599
nagatettat acagggaegt gatgttggag aactactgga acettgttte tetgggaetg
tgtcattttg atatgaatat tatctccatg ttggaggaag ggaaagagcc ctggactgtg
aagagctgtg tgaaaatagc aagaaaacca agaacgcggg aatgtgtcaa aggcgtggtc
acagatatco otootaaatg tacaatcaag gatttgotac caaaagagaa gagcagtaca
gaagcagtat tccacacagt ggtgttggaa agacacgaaa gccctgacat tgaagacttt
 teetteaagg aacceeagaa aaatgtgeat gattttgagt gteaatggag agatgn
 <210> 2600
 <211> 118
 <212> PRT
 <213> Homo sapiens
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 Xaa Ile Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Trp Asn Leu Val
 Ser Leu Gly Leu Cys His Phe Asp Met Asn Ile Ile Ser Met Leu Glu
                                 25
 Glu Gly Lys Glu Pro Trp Thr Val Lys Ser Cys Val Lys Ile Ala Arg
```

```
40
Lys Pro Arg Thr Arg Glu Cys Val Lys Gly Val Val Thr Asp Ile Pro
                        55
Pro Lys Cys Thr Ile Lys Asp Leu Leu Pro Lys Glu Lys Ser Ser Thr
                                        75
Glu Ala Val Phe His Thr Val Val Leu Glu Arg His Glu Ser Pro Asp
                                    90
Ile Glu Asp Phe Ser Phe Lys Glu Pro Gln Lys Asn Val His Asp Phe
                                105
            100
Glu Cys Gln Trp Arg Asp
        115
<210> 2601
<211> 329
<212> DNA
<213> Homo sapiens
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qeqecqatca tqatetacqq cqacqacqtc acceacctgc tcaccqaaga aggcatcgcc
tacttgtaca aggcgcgttc cctggaagag cgccaagcga tgatcgccgg cggtggtggg
gtcaccgcct tcggcttgcg ccacaacccc aaggacactg cgcgcatgcg ccgcgaaggc
ttgatcgcct tgcccgaaga cctcggtatc cgccgcaccg acgccacccg cgaactgttg
geegecaaga gegtggeega eetggtggag tggteeggtg gettgtgeaa eeegeeegee
aagttcagga gctggtaaat gcgcgccct
329
<210> 2602
<211> 105
<212> PRT
<213> Homo sapiens
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Ala Pro Ile Met Ile Tyr Gly Asp Asp Val Thr His Leu Leu Thr Glu
1
Glu Gly Ile Ala Tyr Leu Tyr Lys Ala Arg Ser Leu Glu Glu Arg Gln
Ala Met Ile Ala Gly Gly Gly Val Thr Ala Phe Gly Leu Arg His
Asn Pro Lys Asp Thr Ala Arg Met Arg Arg Glu Gly Leu Ile Ala Leu
                        55
                                            60
Pro Glu Asp Leu Gly Ile Arg Arg Thr Asp Ala Thr Arg Glu Leu Leu
Ala Ala Lys Ser Val Ala Asp Leu Val Glu Trp Ser Gly Gly Leu Cys
                                    90
                85
Asn Pro Pro Ala Lys Phe Arg Ser Trp
                                105
            100
<210> 2603
<211> 423
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<212> DNA
<213> Homo sapiens
<400> 2603
teatgateca tigetetace etttaeggit gigeacetae geecaggieg giggieagga
gcatcggttc ggtggtaccg aggtcgagga cttccttcac gccgttgttc gcggagggca
ggttgtggta agtggtcagg tgggccacga tctgggcact gatcacctcg gtgaaatcga
agetetggtt accetgageg gtegeegaca egacaeggte cacaeeggag accagaeega
teteggagat gategegtaa eetteattgt egtagaggat ettgeaegea tegatgatge
gettgatete ettggeagtg aagatgattt eeateggggt gttggeegae agataetgae
cggagctggt ggtcacctgg gtggaatcca ggtcatccgg aaccgggttc aggttgtccg
420
cgg
423
<210> 2604
<211> 103
<212> PRT
<213> Homo sapiens
<400> 2604
Met Glu Ile Ile Phe Thr Ala Lys Glu Ile Lys Arg Ile Ile Asp Ala
Cys Lys Ile Leu Tyr Asp Asn Glu Gly Tyr Ala Ile Ile Ser Glu Ile
                                 25
Gly Leu Val Ser Gly Val Asp Arg Val Val Ser Ala Thr Ala Gln Gly
                             40
Asn Gln Ser Phe Asp Phe Thr Glu Val Ile Ser Ala Gln Ile Val Ala
                         55
His Leu Thr Thr Tyr His Asn Leu Pro Ser Ala Asn Asn Gly Val Lys
                                         75
                     70
Glu Val Leu Asp Leu Gly Thr Thr Glu Pro Met Leu Leu Thr Thr Asp
                                     90
                 85
 Leu Gly Val Gly Ala Gln Pro
             100
 <210> 2605
 <211> 354
 <212> DNA
 <213> Homo sapiens
 <400> 2605
 ngggagggag ggcatgtcaa aagcgactgt atccagaggg tttgatttaa acatttttca
 aaacatatgt ggcaaacage ggggggaggg gatctcacca acgtttttct ccacttcttc
 tttgcatgct gggacctgtt ccactttcaa aatgtgtcat tttggaagga aagggaggaa
 180
```

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caactacttq aaaqqaatac acgtcagtat gagccctttc teetcagcag aaggttgccc
caaagtacct cctctgaggc gagagaaagg agagaggagg agagacagct ttcatcaaat
qqqqcaccca ggactctagg gagagaggca cgttctcaca aaggcccttt gagc
354
<210> 2606
<211> 101
<212> PRT
<213> Homo sapiens
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Met Ser Lys Ala Thr Val Ser Arg Gly Phe Asp Leu Asn Ile Phe Gln
                                    10
Asn Ile Cys Gly Lys Gln Arg Gly Glu Gly Ile Ser Pro Thr Phe Phe
Ser Thr Ser Ser Leu His Ala Gly Thr Cys Ser Thr Phe Lys Met Cys
                            40
His Phe Gly Arg Lys Gly Arg Asn Asn Tyr Leu Lys Gly Ile His Val
                        55
Ser Met Ser Pro Phe Ser Ser Ala Glu Gly Cys Pro Lys Val Pro Pro
                                        75
Leu Arg Arg Glu Lys Gly Glu Arg Arg Arg Asp Ser Phe His Gln Met
                                    90
Gly His Pro Gly Leu
            100
<210> 2607
<211> 297
<212> DNA
<213> Homo sapiens
<400> 2607
tgatcaagaa caatgatacg atatcctaac caacagagga agcaacggaa gttgttgttg
tttttatgct gtttttttt tttgagaacg gatcttgccc ctgcccccag gccggaatgg
atgacatgga cagaaccccg tcggaaaaaa gccggaatgt gcaaacccaa attcccacca
cacgggggcc ctaacaattg gatccatccc cnaaaaaanc cntnncaaaa aaagntaaaa
acttttttt ttttaaannn anaccccaa aaaaaccaaa aaaaaaaatt taaaaaa
<210> 2608
<211> 95
<212> PRT
<213> Homo sapiens
<400> 2608
Met Ile Arg Tyr Pro Asn Gln Gln Arg Lys Gln Arg Lys Leu Leu
                                    10
Phe Leu Cys Cys Phe Phe Phe Leu Arg Thr Asp Leu Ala Pro Ala Pro
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25
            20
Arg Pro Glu Trp Met Thr Trp Thr Glu Pro Arg Arg Lys Lys Ala Gly
                            40
Met Cys Lys Pro Lys Phe Pro Pro His Gly Gly Pro Asn Asn Trp Ile
                        55
His Pro Xaa Lys Xaa Pro Xaa Gln Lys Lys Xaa Lys Thr Phe Phe Phe
                                        75
                    70
Leu Xaa Xaa Xaa Pro Gln Lys Asn Gln Lys Lys Lys Phe Lys Lys
<210> 2609
<211> 305
<212> DNA
<213> Homo sapiens
<400> 2609
negecategg catgatgtea ggeaaagatg atcetggeat ggeaaaggta taeggttttg
ttgacacgtc cctgacgatc cctatccgct catctggaga cccatgcgtt ccttggaccc
caattgccta cgaaaaaatt tttttttcc cccccaaaaa acacccccc ctcgcatctg
tgaaagttct acctcggggt cgtcatctcg gctgtcatcg tcggcaaatc actcagctgg
cegtaccett egteategee egggeeaceg acetegaegg eneagegtge aeggeaacga
ccacc
305
<210> 2610
<211> 98
 <212> PRT
 <213> Homo sapiens
 <400> 2610
Met Met Ser Gly Lys Asp Asp Pro Gly Met Ala Lys Val Tyr Gly Phe
                                     10
 Val Asp Thr Ser Leu Thr Ile Pro Ile Arg Ser Ser Gly Asp Pro Cys
                                 25
             20
 Val Pro Trp Thr Pro Ile Ala Tyr Glu Lys Ile Phe Phe Pro Pro
                             40
 Lys Lys His Pro Pro Leu Ala Ser Val Lys Val Leu Pro Arg Gly Arg
 His Leu Gly Cys His Arg Arg Gln Ile Thr Gln Leu Ala Val Pro Phe
                                         75
                     70
 Val Ile Ala Arg Ala Thr Asp Leu Asp Gly Xaa Ala Cys Thr Ala Thr
 Thr Thr
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Ile Arg Phe Asp Gln Pro Gly Lys Pro Leu Thr Ala Ala Leu Pro Tyr
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Ile Asn Leu Lys Ser Met Phe Leu Cys Gly Gln Ala Ala Ala Arg Glu
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45

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Gly Ala Leu Ser Pro Glu Ser Gly Ser Val Lys Phe Asp Gly Thr Asp
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Leu Ser Thr Met Ser Ala Ser Cys Ile Ala Arg Arg Ile Ala Ile Val
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Trp Gln Ser Ala Thr Ala Pro Ser Asp Leu Thr Val Arg His Leu Val
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Gly Tyr Gly Arg Tyr Ala His Thr Pro Trp Trp Gln Ile Arg Asp Thr
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attgagttgg 1620	ctgaaaatgt	aggagattat	gaaccttctg	ctcaagaaga	agtactttct
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Leu Gln Glu Ala Gly Thr Phe Arg His Thr Leu Trp Lys Arg Val Gln
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Gly Ala Val Thr Pro Leu Leu Ala Ser Met Ile Ser Phe Ile Asp Arg
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Asp Gly Asn Leu Glu Leu Leu Thr Arg Pro Asp Thr Pro Pro Trp Ala
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                85
Arg Asp Leu Trp Met Phe Ile Phe Ser Asp Thr Met Leu Leu Asn Ile
                               105
            100
Pro Leu Val Met Asn Asn Glu Arg His Lys Gly Glu Met Ala Tyr Ile
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Pro	) Ph	e Ly	s Cy	s Se	r Ly	s Cy	s As	p Ar	g va	I bu	e m	68	5 AL	9 45	n Tyr
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Lev	ı Va	1 G1	n Hi	s Gl	u Ar	g Th	r Hi	s Ai	a Ar	д гу	5 Dy 70	n	<b>-</b>		l Cys
	69	0				69	15	- Cl	- CO	r Se	, C∨ ~ C∨	s Le	u Se	r Ly	s His
															s His 720
70	5	_		_	71	0 61	7 7	c Dr	o Tv	r Va	1 Cv	s As	р Ту	r Cy	s Gly
				72	., ca	<i>-</i> ۸۱	ം ഭി	11 T.A	ւս Va	1 Ar	g Hi	s Gl	n Ar	g Il	e His
		~	1/4 - T T	10	· ~ ~·	r 17=	יו כי	rs Gl	n Gl	u Ci	s Gl	y Ly	/s Al	a Ph	ne Thr
~1	_ ^.	/: -2 ~	55 er C	ve t.e	u Se	r Il	le Hi	s Ar	g Aı	g Va	al Hi	is Ti	ır Gl	Ly G	lu Lys
D	, T-	ייי אריייין	ra C	vs G1	y Gl	u C	ys Gl	Ly L	/s A	la Pl	ne Al	la G	ln Ly	/s A	la Asn
PT	0 17	AT W	ry C	, 5 02	.,										

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155

135

150

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130

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425
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Ala Lys His Lys Lys His Lys Ser Gly Lys Lys Ser Val Ser Lys Lys
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Ala Ile Thr Lys Lys Arg Lys Thr Val Ile Lys Ser Pro Thr Val Pro
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Glu Phe Gln Leu Ile Cys Thr Asn Leu Asp Glu Leu Arg Glu Leu Ile
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Pro Val Arg Pro Val Phe Asn Asn Phe Pro Leu Asn Met Gly Pro Ile
                                        75
65
Pro Ala Pro Tyr Val Pro Pro Leu Pro Asn Val Arg Val Asn Tyr Asp
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Phe Gly Pro Ile His Met Pro Leu Glu His Asn Leu Pro Met His Phe
Gly Pro Gln Pro Arg His Arg Phe
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265
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Glu Leu Pro Ser Ser His Thr Asn Ala Lys Val Ala Glu Val Leu Ser
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        275
Ser Leu Leu Gly Gly Glu Gly His Phe Ser Lys Asp Val His Leu Pro
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                        295
His Asn Tyr His Ile Asp Phe Glu Ile Arg Met Asp Thr Asn Arg Asn
                                        315
                    310
Gln Val Leu Pro Leu Ser Asp Val Asp Thr Thr Ser Ala Thr Asp Ile
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                325
Gln Arg Val Ala Val Leu Cys Val Ser Arg Ser Ala Tyr Cys Leu Gly
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            340
Ser Ser His Pro Arg Gly Phe Leu Ala Met Lys Met Arg His Leu Asn
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Ala Met Gly Phe His Val Ile Leu Val Asn Asn Trp Glu Met Asp Lys
                                            380
                        375
Leu Glu Met Glu Asp Ala Val Thr Phe Leu Lys Thr Lys Ile Tyr Ser
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aaaa
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Ala Arg Trp Glu His Lys Thr Arg Lys Leu Ser Arg Ala Phe Gly Ser
                           40
Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Val Thr Ile Leu Leu Leu Asn
                       55
Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
                                      75
                   70
Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
                                  90
Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
           100
                              105
Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
                                              125
                           120
Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
                      135
                                          140
Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
                   150
                                      155
Thr Gly Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
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Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala
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Ser Gly Ser His Lys Arg Ser
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gegecaatge gaagegttge agtegettga etcacetgag getetecaag gatacettea
180
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Gln Val Leu Arg Arg Thr Pro Arg Thr Lys Met Phe Thr Pro Pro Ser
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 Glu Ser Gln Leu Val Asp Thr Gly Thr Gln Thr Asp Ile Thr Phe Glu
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 His Ile Met Ala Leu Thr Lys Met Ser Ser Pro Ser Pro Val Leu
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 Asp Pro Tyr Leu Leu Pro Glu Glu His Pro Ser Ala His Glu Tyr Tyr
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             100
 Asp Pro Asn Asp Tyr Ile Gly Asp Ile His Gln Glu Met Asp Arg Glu
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Thr Arg His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu
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Arg Gly Glu Ser Cys Leu Val His Cys Leu Ala Gly Val Ser Arg Ser
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His C	'ys '	Val	Ser	A1a 325	Pne	vai	цуз	Deu	330	· · · ·			•	335	
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385 Phe <i>l</i>		~1 n	1757	T.e.11	Gln	Glv	Thr	Ala	Ala	Ser	Thr	Lys	Asn	Lys	Leu
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545			_	<b>a</b> 3	550	) . Tla		, Glr	. Glr	1 Tle	e Glr	ı Thi	Туз	c Glr	a Arg
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Car	Trn	T.et	ı Lvs	: Val	Thr	Ası	э Туз	r Ile	e Ala	a Gl	u Lys	s Ası	ı Lev	ı Pro	val
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Lys	Ph∈	e Gl	y Se	r Vai	l Pr	o Ph	e Th	r Ly	s As	n Pr	o Gl	u Ly	s Ty	r II	e Lys
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 Arg Glu Asn Phe Ser His Ala Pro Ser Pro Asp Met Ser Ala Ala Ser
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Leu Cys Ala Leu Glu Gln Leu Met Met Ala Gln Ala Gln Glu Cys Val
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Phe Glu Gly Leu Ser Pro Pro Ala Ser Met Ala Pro Gln Asp Cys Leu
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Ala Gln Leu Arg Leu Ala Gln Glu Ala Ala Gln Val Ser Ser Gly Thr
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Arg Val Arg Met Gln Gly Val Gly Pro Ser Trp Gly Gln Ser Pro Gly
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Pro Gly Met Arg Glu Leu Ser His Leu Leu Pro Cys Val Ser Ala Pro
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Ser Gln Leu Leu Ser Cys Ser Leu Gly Gly Leu Val Arg Asn Leu Gly
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Thr Arg Ala Ser Ala Ser Arg Glu Trp His Lys Ala Ala Gly Thr Glu
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Val Pro Gly Arg Leu Leu Gly Trp Trp Ser
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Leu Val Ser Ala Ala Ala Ala Ser Arg Pro Trp Met Ala Arg Cys Ala
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Val Gly Arg His Arg Gly Cys Thr Arg Thr Gln Pro Asp Leu Gly Gln
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Phe Ala Pro Thr Leu Leu His Ser Arg Gly Pro Gly Ser Thr Cys Gln
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Cys Gly Ser Gln Asn Ala Gln Ala Lys Tyr Arg Asp Gln Leu Thr Ile
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Gln Val Glu Pro Glu Ala Trp Ala Gly Ala Ser Asn Cys Pro Pro Val
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Arg Leu Arg Asp Ala
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Asn Asn Ser Tyr Ser Leu Ala Phe Leu Ala Gly Lys Leu Asn Ser Lys
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Val Val Ile Phe Val Val Phe Leu Met Ala Leu Ser Glu Asn Ala Val
Leu Ile Leu Leu Ile His Cys Asp Thr Tyr Leu His Thr Pro Met Tyr
Phe Phe Ile Ser Gln Leu Ser Leu Met Asp Met Ala Tyr Ile Ser Val
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Thr Val Pro Lys Met Leu Leu Asp Gln Val Met Gly Val Asn Lys Ile
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Ser Ala Pro Glu Cys Gly Met Gln Met Phe Leu Tyr Leu Thr Leu Ala
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Gly Ser Glu Phe Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val
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 Arg Ser Arg Ala Leu Gly Pro Arg Ala Trp Val Asp Leu Ala His Leu
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 Ala Val Pro Ala Ser Ala Phe Asp Ser Thr Pro Asn Leu Lys Gly Ile
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 Phe Arg
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Val Asp Gly Lys Val Tyr Leu Ser Gly Leu Arg Ser Asn Leu Ser Met
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Ser Val Lys Val Leu Pro Trp Leu Ser Pro Glu Val Leu Gln Gln Asn
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                                105
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                            120
Thr Gln Met Leu Leu Glu Lys Leu Asn Gly Thr Val Pro Cys Leu Leu
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                                            140
Asp Thr Ser Thr Ile Pro Ala Glu Glu Leu Thr Met Ser Pro Ser Arg
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Ser Val Ala Asn Ser Gly Leu Ser Asp Ser Leu Thr Thr Ser Thr Pro
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 Phe Gln Tyr Leu Pro Lys Leu His Thr Leu Ser Leu Asn Gly Ala Met
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 Asp Ile Gln Glu Phe Pro Asp Leu Lys Gly Thr Thr Ser Leu Glu Ile
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 Leu Gln His Asn Arg Ile Trp Glu Ile Gly Ala Asp Thr Phe Ser Gln
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1380

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Val Val Asp Ile Ala His Ser Pro Pro Ala Lys Lys Ser Thr Gly
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Ser Ser Thr Trp Pro Leu Asp Pro Gly Val Glu Val Thr Leu Thr Met
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Lys Ala Ala Ser Gly Ser Thr Gly Asp Gln Lys Val Gln Ile Ser Tyr
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 Tyr Gly Pro Lys Thr Pro Pro Val Lys Ala Leu Leu Tyr Leu Thr Ala
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 Pro Thr Arg Ala Val Lys Asp Gln Arg Thr Trp Thr Trp Gly Pro Cys
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Phe	Phe	Thr 195	Asn	His	Thr	Leu	Val 200	Leu	His	Val	Ala	Arg 205	Ser	Glu	Met
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			260					265					Ser 270		
		275					280					285	Gln		
	290					295					300		Thr		
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Val Ala Thr Gln Lys Thr Asp Thr Gly Leu Thr Gln Gly Leu Leu Lys
Val Leu His Lys Gln Cys His His Lys Arg Tyr Val Glu Leu Thr Asp
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Leu Glu Gln Lys Trp Lys Asn Leu Cys Leu Pro Lys Glu Lys Phe Lys
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Gln Arg Asn Arg Asp Phe Leu Leu Ala Leu Glu Arg Asp Arg Leu Lys
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Ser Pro Ile Cys Ile Ala Arg Glu Cys Ser Gly Pro Trp Gly Lys Gly
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Leu Leu Pro Pro Glu Gly Thr Leu Leu Pro Arg Pro Leu Leu Gly Glu
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Gly Pro Lys Gly Glu Ala Ser Lys Phe Pro Leu Phe Phe Asp Leu Ser
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Gly Ile Thr Glu Asp Gln Leu Trp Arg Ala Lys Tyr Val Tyr Asp Ser
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Ala Phe His Pro Asp Thr Gly Glu Lys Val Val Leu Ile Gly Arg Met
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Tyr Thr Glu Arg Arg Gln Pro Leu Tyr Arg Phe Ile Thr Thr Ile Cys
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Thr Ser Ser Lys Asp Asp Lys Gly Ser Thr Ser Ser Thr Ser Gly Ser
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Ser Gly Ser Ser Thr Lys Asn Ile Trp Val Ser Gly Leu Ser Ser Asn
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Thr Lys Ala Ala Asp Leu Lys Asn Leu Phe Gly Lys Tyr Gly Lys Val
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Leu Ser Ala Lys Val Val Thr Asn Ala Arg Ser Pro Gly Ala Lys Cys
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Tyr Gly Ile Val Thr Met Ser Ser Ser Thr Glu Val Ser Arg Cys Ile
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Ala His Leu His Arg Thr Glu Leu His Gly Gln Leu Ile Ser Val Glu
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Lys Val Lys Gly Asp Pro Ser Lys Lys Glu Met Lys Lys Glu Asn Asp
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Glu Lys Ser Ser Ser Arg Ser Ser Gly Asp Lys Lys Asn Thr Ser Asp
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Arg Ser Ser Lys Thr Gln Ala Ser Val Lys Lys Glu Glu Lys Arg Ser
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Gln 1505		Pro	Cys	Ser	Glu 1510		Gln	Gln	Lys	Val 1519		Leu	Leu	Lys	Tyr 1520
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Gln	Glu 1570		Ala	Ala	Val	Leu 1579	Lys	Met	Val	Glu	Asn 1580		Lys	Lys	Gln
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Asn	Ser	Ala 1639	Leu		Glu	Arg	Glu 1640		Glu	Lys	Phe	Asn 1645		Lys	Glu
Glu	Pro 1650	Glu		Cys	Lys	Val 1655	Gln		Ser	Thr	Leu 1660		Ser	Ser	Leu
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1700		1705	1710
Ser Tyr Asn Glu	Lys Leu Leu Lys	0	1/25
1715 Leu Asn Ser Cys	Val Ash Lvs Leu	Ala Lys Ser Ser	Leu Leu Glu His
1770	1735	1/4	: <b>U</b>
Arg Ile Ala Thr	Met Lys Gln Glu	Gln Lys Ser Trp	1760
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Ala Ser Leu Lys		. Ala Ser Gin Gil	Lys Val Gln Asn 1775
	1765	1770	
		1785	: Ser Arg Met Lys 1790
1780	) mb cla cla	1705 Salu Lys Glu Ala	Leu Lys Gln Glu
	Val Thr Gin Gin	no	1805
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1810	Ala Thr His Pro	Ser Gly Leu His	Asn Gln Gln Lys
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Arg Leu Ser Tro	Asp Lvs Leu As	His Leu Met Ası	n Glu Glu Gln Gln
	1015	1850	1033
Leu Leu Tro Gln	Glu Asn Glu Ar	g Leu Gln Thr Me	t Val Gln Asn Thr
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Lvs Ala Glu Leu	Thr His Ser Ar	g Glu Lys Val Ar	g Gln Leu Glu Ser
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Asn Leu Leu Pro	Lys His Gln Ly	s His Leu Asn Pr	o Ser Gly Thr Met
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Asn Pro Thr Glu	Gln Glu Lys Le	u Ser Leu Lys Ar	g Glu Cys Asp Gln 1920
1905	1910	1915	
Phe Gln Lys Glu		a Asn Arg Lys va 1930	l Ser Gln Met Asn 1935
	1925	TIO HIS ION GI	u Asn Glu Gly Leu
		1945	1950
194	U Valtus Ieu As		t Glu Met Gln His
	val Lys Led As	60	1965
1955	Ala Thr Pro Se	r Pro Ser Pro Hi	s Ala Trp Asp Leu
1070	1975	13	6 U
Gla Leu Leu Gla	Gln Gln Ala Cy	s Pro Met Val Pr	o Arg Glu Gln Phe
	1990	1995	2000
Leu Gln Leu Gln	Arg Gln Leu Le	u Gln Ala Glu Ar	g Ile Asn Gln His
	2005	2010	2013
Leu Gln Glu Glu	Leu Glu Asn Ar	g Thr Ser Glu Th	r Asn Thr Pro Gln
202	0.0	2025	2030
Gly Asn Gln Glu	Gln Leu Val Ti	ır Val Met Glu Gl	u Arg Met Ile Glu
2025	2.0	140	2045
Val Glu Gln Lys	: Leu Lys Leu Va	al Lys Arg Leu Le	eu Gln Glu Lys Val
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	Glu Gln Val S	er Leu Pro Gly H: 2075	is Leu Cys Ser Pro 2080
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Thr Gly Leu Tyr Glu Tyr Lys Val Phe Gly Val Leu Glu Asp Cys Ser
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 Trp Asp Gln Tyr Val Lys Glu Leu Tyr Glu Gln Glu Cys Asn Gly Glu
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 Thr Val Val Tyr Trp Glu Val Lys Tyr Pro Phe Pro Met Ser Asn Arg
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 Asp Asn Pro Gly Gly Gln Ile Pro Ser Trp Leu Ile Asn Trp Ala Ala
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Pro Gly Asp Ile Phe Gly Cys Val Ala Asp Ile Gly Trp Ile Thr Gly
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5340
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5912
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 Ser Thr Ser Phe Gly Gly Gln Asn Arg Gly Arg Ser Asp Ser Val Asp
                             40
 Tyr Gly Gln Thr His Tyr Tyr His Gln Arg Gln Asn Ser Asp Asp Lys
                         55
 Leu Asn Gly Trp Gln Asn Ser Arg Asp Ser Gly Ile Cys Ile Asn Ala
                                         75
 Ser Asn Trp Gln Asp Lys Ser Met Gly Cys Glu Asn Gly His Val Pro
                                     90
                 85
 Leu Tyr Ser Ser Ser Ser Val Pro Thr Thr Ile Asn Thr Ile Gly Thr
             100
 Ser Thr Ser Thr Asn Val Pro Ala Trp Leu Lys Ser Leu Arg Leu His
                             120
 Lys Tyr Ala Ala Leu Phe Ser Gln Met Thr Tyr Glu Glu Met Met Ala
                                              140
                         135
 Leu Thr Glu Cys Gln Leu Glu Ala Gln Asn Val Thr Lys Gly Ala Arg
                                          155
 His Lys Ile Val Ile Ser Ile Gln Lys Leu Lys Glu Arg Gln Asn Leu
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170

175

165

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Leu Lys Ser Leu Glu Arg Asp Ile Ile Glu Gly Gly Ser Leu Arg Ile
           180
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Pro Leu Gln Glu Leu His Gln Met Ile Leu Thr Pro Ile Lys Ala Tyr
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Ser Ser Pro Ser Thr Thr Pro Glu Ala Arg Arg Arg Glu Pro Gln Ala
                       215
                                          220
Pro Arg Gln Pro Ser Leu Met Gly Pro Glu Ser Gln Ser Pro Asp Cys
                   230
                                       235
Lys Asp Gly Ala Ala Ala Thr Gly Ala Thr Ala Thr Pro Ser Ala Gly
               245
                                   250
Ala Ser Gly Gly Leu Gln Pro His Gln Leu Ser Ser Cys Asp Gly Glu
           260
                               265
Leu Ala Val Ala Pro Leu Pro Glu Gly Asp Leu Pro Gly Gln Phe Thr
                          280
        275
Arg Val Met Gly Lys Val Cys Thr Gln Leu Leu Val Ser Arg Pro Asp
                       295
Glu Glu Asn Ile Ser Ser Tyr Leu Gln Leu Ile Asp Lys Cys Leu Ile
                   310
                                       315
His Glu Ala Phe Thr Glu Thr Gln Lys Lys Arg Leu Leu Ser Trp Lys
               325
                                   330
Gln Gln Val Gln Lys Leu Phe Arg Ser Phe Pro Arg Lys Thr Leu Leu
                               345
Asp Ile Ser Gly Tyr Arg Gln Gln Arg Asn Arg Gly Phe Gly Gln Ser
                           360
Asn Ser Leu Pro Thr Ala Gly Ser Val Gly Gly Met Gly Arg Arg
                       375
Asn Pro Arg Gln Tyr Gln Ile Pro Ser Arg Asn Val Pro Ser Ala Arg
                   390
                                      395
Leu Gly Leu Leu Gly Thr Ser Gly Phe Val Ser Ser Asn Gln Arg Asn
                                  410
Thr Thr Ala Thr Pro Thr Ile Met Lys Gln Gly Arg Gln Asn Leu Trp
                               425
Phe Ala Asn Pro Gly Gly Ser Asn Ser Met Pro Ser Arg Thr His Ser
                           440
Ser Val Gln Arg Thr Arg Ser Leu Pro Val His Thr Ser Pro Gln Asn
                       455
Met Leu Met Phe Gln Gln Pro Glu Phe Gln Leu Pro Val Thr Glu Pro
                   470
                                      475
Asp Ile Asn Asn Arg Leu Glu Ser Leu Cys Leu Ser Met Thr Glu His
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Ala Leu Gly Asp Gly Val Asp Arg Thr Ser Thr Ile
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cccaacacat tetggagtge tgetgaggat gggettatee gecagtatga cettegagag
aacagcaaac actcggaggt gctgattgac ctgacagagt actgtggcca gctggtggag
gccaagtgcc tcactgtcaa cccccaggac aacaactgcc tggcagttgg ggccagcggg
cccttcgtga ggctctatga catccgcatg atccataacc acagaaagag catgaagcag
agcccttcag cgggtgtgca caccttctgt gaccggcaga aaccccttcc ggacggtgca
geceagtatt aegtageagg teacetgeea gtgaagette etgaetacaa caacegtttg
agagtgctgg ttgccaccta tgtgaccttc agccccaatg gcacagagct actagtcaac
atgggggggg aacaggtcta tttgtttgac ttgacttaca agcagcggcc gtacaccttc
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aaggetgtge agagggeece teacaatgee atgetttatg gaaacegage ageageetae
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tecetaaace catgecacet gaaggeacae tttegeetgg eeegetgeet etttgagete
aagtatgtgg ctgaagccct ggagtgcctg gacgacttca aagggaaatt teeggagcag
 geceacagea gegettgtga tgeattggge egegaeatea eagetgeeet ettetetaaa
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 <212> PRT
 <213> Homo sapiens
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 Thr Ile His Met Phe Gly Asp His Thr Asn Arg Val Lys Arg Ile Ala
 Thr Ala Pro Met Trp Pro Asn Thr Phe Trp Ser Ala Ala Glu Asp Gly
 Leu Ile Arg Gln Tyr Asp Leu Arg Glu Asn Ser Lys His Ser Glu Val
 Leu Ile Asp Leu Thr Glu Tyr Cys Gly Gln Leu Val Glu Ala Lys Cys
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75
65
                    70
Leu Thr Val Asn Pro Gln Asp Asn Asn Cys Leu Ala Val Gly Ala Ser
                                   90
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Gly Pro Phe Val Arg Leu Tyr Asp Ile Arg Met Ile His Asn His Arg
           100
                               105
Lys Ser Met Lys Gln Ser Pro Ser Ala Gly Val His Thr Phe Cys Asp
                           120
Arg Gln Lys Pro Leu Pro Asp Gly Ala Ala Gln Tyr Tyr Val Ala Gly
                       135
                                          140
His Leu Pro Val Lys Leu Pro Asp Tyr Asn Asn Arg Leu Arg Val Leu
                   150
                                      155
Val Ala Thr Tyr Val Thr Phe Ser Pro Asn Gly Thr Glu Leu Leu Val
                                  170
               165
Asn Met Gly Gly Glu Gln Val Tyr Leu Phe Asp Leu Thr Tyr Lys Gln
                              185
Arg Pro Tyr Thr Phe Leu Leu Pro Arg Lys Cys His Ser Ser Gly Glu
                           200
Val Gln Asn Gly Lys Met Ser Thr Asn Gly Val Ser Asn Gly Val Ser
                       215
Asn Gly Leu His Leu His Ser Asn Gly Phe Arg Leu Pro Glu Ser Arg
                   230
                                       235
Gly His Val Ser Pro Gln Val Glu Leu Pro Pro Tyr Leu Glu Arg Val
                                   250
               245
Lys Gln Gln Ala Asn Glu Ala Phe Ala Cys Gln Gln Trp Thr Gln Ala
                               265
Ile Gln Leu Tyr Ser Lys Ala Val Gln Arg Ala Pro His Asn Ala Met
                           280
Leu Tyr Gly Asn Arg Ala Ala Ala Tyr Met Lys Arg Lys Trp Asp Gly
                                           300
                       295
Asp His Tyr Asp Ala Leu Arg Asp Cys Leu Lys Ala Ile Ser Leu Asn
                   310
                                       315
Pro Cys His Leu Lys Ala His Phe Arg Leu Ala Arg Cys Leu Phe Glu
               325
                                   330
Leu Lys Tyr Val Ala Glu Ala Leu Glu Cys Leu Asp Asp Phe Lys Gly
                               345
           340
Lys Phe Pro Glu Gln Ala His Ser Ser Ala Cys Asp Ala Leu Gly Arg
                           360
Asp Ile Thr Ala Ala Leu Phe Ser Lys Asn Asp Gly Glu Glu Lys Lys
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                       375
Gly Pro Gly Gly Gly Ala Pro Val Arg Leu Arg Ser Thr Ser Arg Lys
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Gly Cys Thr Arg
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<211> 856
<212> DNA
<213> Homo sapiens
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<400> 2725

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aaggttetta aagaagteag ggtgeaggat gagaacaaeg tttgttttga gtgtggegeg
180
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300
aaggacattg agcttgagaa gatgaaagct ggtgggaatg ctaagttccg agagttcctg
gagteteagg aggattacga teettgetgg teettgeagg agaagtacaa cagcagagee
geggeeetet ttagggataa ggtggteget etggeegaag geagagagtg gtetetggag
teateacetg eccagaactg gaceecacet cageecagga egetgeegte catggtgeac
cggtagctgc tcctcgtggg gccttagtac agtttccact gggtcctgaa cttagtagat
tgggtttccc acagaattct ccccttcttt gctgttgtga cagctctttt cccagaagtc
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acccatagag ctgtctcaga tagcgcccca ggtaagctcc gcacgccttc caggtgtgca
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856
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                                 25
Val Ser Val Thr Tyr Gly Ile Trp Ile Cys Leu Glu Cys Ser Gly Arg
                             40
His Arg Gly Leu Gly Val His Leu Ser Phe Val Arg Ser Val Thr Met
                         55
 Asp Lys Trp Lys Asp Ile Glu Leu Glu Lys Met Lys Ala Gly Gly Asn
                                          75
                     70
 65
 Ala Lys Phe Arg Glu Phe Leu Glu Ser Gln Glu Asp Tyr Asp Pro Cys
                                     90
                 85
 Trp Ser Leu Gln Glu Lys Tyr Asn Ser Arg Ala Ala Leu Phe Arg
             100
 Asp Lys Val Val Ala Leu Ala Glu Gly Arg Glu Trp Ser Leu Glu Ser
                                                  125
                             120
 Ser Pro Ala Gln Asn Trp Thr Pro Pro Gln Pro Arg Thr Leu Pro Ser
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                         135
 Met Val His Arg
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<212> DNA
<213> Homo sapiens
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taaatctggt atattaaatt gtgctgtaaa tagatttgta tattttcttt tttgagtact
180
atgataggtg aaatggtatg actataaaaa ggatttgttt ctttttgtct cctggaatga
catgatgcct ttctagagaa agaaaaattg caggctacag gaaaatgata aaaactactg
gattcattta gactattcga tttaggaagg tacaaccact tctttaacat caagctaaaa
360
qtqqqqaaa qtctcaqtct cccaqqtagg tctcctctca cactgtcctg ggtggcaggc
420
getgtttata catgeceget ategetetgg etgeactgta gateatetge egaegggaea
480
teccaqtaaa tqccatqtgc caatcagtec ggetgacatt cagtaaacte ttttccagga
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<211> 221
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Ile Thr Thr Leu Asp Pro Gly Met Ala Pro Tyr Ile Lys Ser Gly Gly
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25
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Glu Leu Asp Ile Val Val Thr Ser Asn Lys Glu Val Lys Val Ala Ala
Val Arg Asp Ala Phe Gln Glu Val Phe Gly Leu Ala Val Val Gly
                        55
Glu Ala Gly Gln Ser Asn Ile Ala Pro Gln Pro Val Gly Tyr Ala Ala
                    70
Gly Leu Lys Gly Ala Gln Glu Arg Ile Asp Ser Leu Arg Arg Thr Gly
                                    90
Val Ile His Glu Lys Gln Thr Ala Val Ser Val Glu Asn Phe Ile Ala
                                105
Glu Leu Leu Pro Asp Lys Trp Phe Asp Ile Gly Cys Leu Val Val Glu
                                                125
                            120
Asp Pro Val His Gly Ile His Leu Glu Thr Phe Thr Gln Ala Thr Pro
                                            140
                        135
Val Pro Leu Glu Phe Val Gln Gln Ala Gln Ser Leu Thr Pro Gln Asp
                                        155
                    150
Tyr Asn Leu Arg Trp Ser Gly Leu Leu Val Thr Val Gly Glu Val Leu
                                    170
                165
Glu Lys Ser Leu Leu Asn Val Ser Arg Thr Asp Trp His Met Ala Phe
                                185
Thr Gly Met Ser Arg Arg Gln Met Ile Tyr Ser Ala Ala Arg Ala Ile
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Ala Gly Met Tyr Lys Gln Arg Leu Pro Pro Arg Thr Val
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    210
<210> 2729
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<212> DNA
<213> Homo sapiens
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agetgetetg ccaegagate ttetgagaag caegtgaatt etgetgaete tecaecetee
agttcctctt cctcttccat actaagggcc tggcttgacc agtgtgcaga agacttccga
gageceete aetteeetg ettacagaaa etgetggatt ateteacaeg gatgatgeeg
ggctctgacc cagaaagaag agcacaaaat cttcttgagc agtttcagaa gcaagaagtg
gaaactgaca atgggcttcc caacacgatc tcc
393
 <210> 2730
 <211> 92
 <212> PRT
 <213> Homo sapiens
 <400> 2730
 Val Ser Cys Ser Ala Thr Arg Ser Ser Glu Lys His Val Asn Ser Ala
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1
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                                    10
Asp Ser Pro Pro Ser Ser Ser Ser Ser Ser Ile Leu Arg Ala Trp
                                25
Leu Asp Gln Cys Ala Glu Asp Phe Arg Glu Pro Pro His Phe Pro Cys
                            40
Leu Gln Lys Leu Leu Asp Tyr Leu Thr Arg Met Met Pro Gly Ser Asp
Pro Glu Arg Arg Ala Gln Asn Leu Leu Glu Gln Phe Gln Lys Gln Glu
                    70
Val Glu Thr Asp Asn Gly Leu Pro Asn Thr Ile Ser
<210> 2731
<211> 447
<212> DNA
<213> Homo sapiens
<400> 2731
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atcggtgtca cctgcgtgtt tcccatcgac ctggccaaga ccaggctgca gaaccagcag
aacggccagc gcgtgtacac gagcatgtcc gactgcctca tcaagaccgt ccgctccgag
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gccatcaagc tggcagccaa cgacttcttc cgacatcagc tctctaagga cgggcagaag
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accacgccca tggagatgct gaagatc
447
<210> 2732
<211> 125
<212> PRT
<213> Homo sapiens
<400> 2732
Ala Asp Gln Pro Ala Ser Gln Ala His Gln Trp Arg His Arg Gly Leu
Ile Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala Lys Thr Arg Leu
Gln Asn Gln Gln Asn Gly Gln Arg Val Tyr Thr Ser Met Ser Asp Cys
Leu Ile Lys Thr Val Arg Ser Glu Gly Tyr Phe Gly Met Tyr Arg Gly
                        55
Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala Ile Lys Leu
                                        75
Ala Ala Asn Asp Phe Phe Arg His Gln Leu Ser Lys Asp Gly Gln Lys
Leu Thr Leu Leu Lys Glu Met Leu Ala Gly Cys Gly Ala Gly Thr Cys
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105
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Gln Val Ile Val Thr Thr Pro Met Glu Met Leu Lys Ile
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<212> DNA
<213> Homo sapiens
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 1200
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 atcacgtatg tgaggaactg caagttcacc tcgcctggtg ccctcccctt catcagtttc
 1320
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2820 agggggaggc	ctgcaggccc	ctggcccctt	ccaccacctc	tgccctccgt	ctgcagacct
2880			ccccaagtc		
2940	33	•			

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<211> 790
<212> PRT
<213> Homo sapiens
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Gly Asn Leu Asn Arg Cys Ile Ala Asp Val Val Ser Leu Phe Ile Thr
                                 25
Val Met Asp Lys Leu Arg Leu Ala Glu Leu Thr Val Asp Glu Phe Leu
                             40
Ala Ser Gly Phe Asp Ser Glu Ser Glu Ser Glu Ser Glu Asn Ser Pro
Gln Ala Glu Thr Arg Glu Ala Arg Glu Ala Arg Ser Pro Asp Lys
                                         75
                     70
Pro Gly Gly Ser Pro Ser Ala Ser Arg Arg Lys Gly Arg Ala Ser Glu
                 85
His Lys Asp Gln Leu Ser Arg Leu Lys Asp Arg Asp Pro Glu Phe Tyr
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Lys Phe Leu Gln Glu Asn Asp Gln Ser Leu Leu Asn Phe Ser Asp Ser
                                                 125
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 Asp Ser Ser Glu Glu Glu Gly Pro Phe His Ser Leu Pro Asp Val
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 Leu Glu Glu Ala Ser Glu Glu Glu Asp Gly Ala Glu Glu Gly Glu Asp
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 Gly Asp Arg Val Pro Arg Gly Leu Lys Gly Lys Lys Asn Ser Val Pro
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 Val Thr Val Ala Met Val Glu Arg Trp Lys Gln Ala Ala Lys Gln Arg
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								185					190		
_		_	180	* ~	Dho	ui c	Glu		Val	Gln	Ala	Phe		Ala	Ala
Leu	Thr		Lys	Leu	Pile	nis	200	142		•		205			
17- 1	x 1 -	195	Thr	Δrσ	Glv	Δsn	Gln	Glu	Ser	Ala	Glu	Ala	Asn	Lys	Phe
vai		1111	1111	Arg	Gry	215	· · · ·				220			•	
G1 =	210	Thr	Λcn	Ser	Δla	Δla	Phe	Asn	Ala	Leu	Val	Thr	Phe	Cys	Ile
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225	200	T 011	Tla	Gly	Cve	1.011	Gln	Lvs	Leu		Phe	Gly	Lys	Val	Ala
Arg	Asp	Leu	116	245	Cys	neu	<b>02</b>	2,0	250			•	-	255	
T	λcn	C07	Car	Ara	Met	Len	Gln	Pro		Ser	Ser	Pro	Leu	Trp	Gly
rys	ASP	361	260	ur a				265					270	_	
T	T AV	λνα	Val	Asn	Tle	Lvs	Ala		Leu	Gly	Ser	Ala	Ile	Gln	Leu
Lys	Leu	275	Val	Vab		_,_	280	- 4 -		-		285			
1/21	Sor	CVS	Leu	Ser	Glu	Thr	Thr	Val	Leu	Ala	Ala	Val	Leu	Arg	His
Val	290	Cyo				295					300				
Tle	Ser	Val	Leu	Val	Pro	Cvs	Phe	Leu	Thr	Phe	Pro	Lys	Gln	Cys	Arg
305					310					315					320
Met	Leu	Leu	Lvs	Arg	Met	Val	Val	Val	Trp	Ser	Thr	Gly	Glu	Glu	Ser
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Leu	Ara	Val	Leu	Ala	Phe	Leu	Val	Leu	Ser	Arg	Val	Cys	Arg	His	Lys
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Lvs	Asp	Thr	Phe	Leu	Gly	Pro	Val	Leu	Lys	Gln	Met	Tyr	Ile	Thr	Tyr
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Val	Arq	Asn	Cys	Lys	Phe	Thr	Ser	Pro	Gly	Ala	Leu	Pro	Phe	Ile	Ser
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Phe	Met	Gln	Trp	Thr	Leu	Thr	Glu	Leu	Leu	Ala	Leu	Glu	Pro	Gly	Val
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Ala	Tyr	Gln	His	Ala	Phe	Leu	Tyr	Ile	Arg	Gln	Leu	Ala	Ile	His	Leu
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Arg	Asn	Ala	Met	Thr	Thr	Arg	Lys	Lys	Glu	Thr	Tyr	Gln	Ser	Val	Tyr
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Asn	Trp	Gln	Tyr	Val	His	Cys	Leu	Phe	Leu	Trp	Cys	Arg	vaı	Leu	ser
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Thr	Ala	Gly	Pro	Ser	Glu			Gln	Pro	Leu	460	lyr	PIO	Leu	Ala
	450					455	_	_	<b>-1</b> 1 -	D			7~~	Dha	Tur
Gln	Val	Ile	Ile	Gly			Lys	Leu	ire	475	IIII	Ala	ALG	FIIC	Tyr 480
465					470	<b>-</b> 1 -	<b>3</b>		T 011			T.e.11	Ser	Glv	
Pro	Leu	Arg	Met			TTE	Arg	Ald	490	1111	שטע	Deu	001	495	Ser
_	<b>~</b> 3		D1	485	Dwa	17-1	Leu	Dro			Leu	Glu	Met		
Ser	GIA	Ala	500		PIO	vai	neu	505					510		
G1-	17-1	700	Dhe	, V C E	Aro	TAVE	Pro			Met	Ser	Ser	Lys	Pro	Ile
GIN	Val	515		. ASI	LALY	цуз	520					525	•		
A cm	Dho	Sor	Val	Tle	T.e.1	LVS			Asn	Val	Asn	Leu	Gln	Glu	Lys
ASII	530		val			535					540				
- 1 מ	TUY	Arc	Δer	ເດເ	, Leu			Gln	Leu	Tyr	Asp	Leu	Thr	Leu	Glu
545		ALG	, AJE	, 01,	550			-		555	-				560
Tyr	Len	His	Ser	Glr	ı Ala	His	CVS	Ile	Gly	Phe	Pro	Glu	Leu	Val	Leu
				565	5				570	)				5/5	
Pro	Wal	٧a١	ī.et	Glr	Leu	Lvs	Ser	Phe	. Leu	Arg	Glu	Cys	Lys	Val	Ala
			580	)				585	5				590		
Asn	TVY	Cvs	Arc	Glr	ı Val	Glr	ı Glm	Let	ı Lev	Gly	Lys	. Val	Gln	Glu	Asn
		595					600	)				605	•		
Ser	Ala	TVI	: Ile	Cys	s Ser	Arc	Arq	Glr	a Arg	, Val	Ser	Phe	Gly	. Val	Ser
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615
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Thr Pro Leu Thr Leu Tyr Tyr Ser His Trp Arg Lys Leu Arg Asp Arg
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Glu Ile Gln Leu Glu Ile Ser Gly Lys Glu Arg Val Arg Leu Gly Glu
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Gly Thr Trp Leu Glu Asp Leu Asn Phe Pro Glu Ile Lys Arg Arg Lys
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Asp Leu Asn Ser Ser Glu Glu Asp Asp Thr Glu Gly Phe Leu Glu Arg
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Gly Ile Leu Gly Pro Leu Ser Thr Arg His Gly Val Glu Asp Asp Glu
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Trp Ser Trp Asp Gly Asp Pro Asp Ala Glu Ala Gly Leu Ala Pro Gly
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gtgggaagag agcaagggca gcagaaatgt ccttctcttc agctggcgaa ggagtatggc
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ctgacagage tggtgctgca ggeccatagg aaggagetgg aaggeeteeg gatgegtgee
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720
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geteetttet eegtgeateg tgtetettet etgettttte tetetteece caettetett
tototgacco otoccotocg gtgcgtttcg tatcaaagct cotcaaacco cgtcccccgt
1200
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1260
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Ser Gly Val Gly Lys Thr Cys Leu Leu Cys Arq Phe Thr Asp Asn Glu
Phe His Ser Ser His Ile Ser Thr Ile Gly Val Asp Phe Lys Met Lys
Thr Ile Glu Val Asp Gly Ile Lys Val Arg Ile Gln Ile Trp Asp Thr
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Ala Gly Gln Glu Arg Tyr Gln Thr Ile Thr Lys Gln Tyr Tyr Arg Arg
Ala Gln Gly Ile Phe Leu Val Tyr Asp Ile Ser Ser Glu Arg Ser Tyr
Gln His Ile Met Lys Trp Val Ser Asp Val Asp Glu Tyr Ala Pro Glu
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                                105
Gly Val Gln Lys Ile Leu Ile Gly Asn Lys Ala Asp Glu Glu Gln Lys
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Arg Gln Val Gly Arg Glu Gln Gly Gln Gln Lys Cys Pro Ser Leu Gln
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Leu Ala Lys Glu Tyr Gly Met Asp Phe Tyr Glu Thr Ser Ala Cys Thr
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145
Asn Leu Asn Ile Lys Glu Ser Phe Thr Arg Leu Thr Glu Leu Val Leu
                                                         175
                                    170
                165
Gln Ala His Arg Lys Glu Leu Glu Gly Leu Arg Met Arg Ala Ser Asn
                                185
Glu Leu Ala Leu Ala Glu Leu Glu Glu Glu Glu Gly Lys Pro Glu Gly
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Pro Ala Asn Ser Ser Lys Thr Cys Trp Cys
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aggagtettt gegagagega ggageagegg ttaetggaae aggtgeatgg egaagaggag
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gacaccatcc gcactggcct ggtgggcatg cttactcacc tggatgacct ccagctgatt
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10/043,649

WO 00/58473

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ttcatcttcg gcttctgctg gctgagtccc gcgctgcagg atctgcaagc cacggaggcc 180

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gagtccaact ctagggcgct gctgcacagc gacgagcacc agctcctgac caaccccaag
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tggcaacagt actggaaaga tgagattggt tcccagccat ttacttgcta ttttaatcaa
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 Met Tyr Phe Asn Cys Ser Glu Asp Asn Pro Ser Arg Glu Arg Cys Ser
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 Val Pro Tyr Ser Cys Cys Leu Pro Thr Pro Asp Gln Ala Val Ile Asn
 Thr Met Cys Gly Gln Gly Met Gln Ala Phe Asp Tyr Leu Glu Ala Ser
                                      90
                  85
 Lys Val Ile Tyr Thr Asn Gly Cys Ile Asp Lys Leu Val Asn Trp Ile
                                  105
              100
  His Ser Asn Leu Phe Leu Leu Gly Gly Val Ala Leu Gly Leu Ala Ile
                              120
  Pro Gln Leu Val Gly Ile Leu Leu Ser Gln Ile Leu Val Asn Gln Ile
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            20
                                25
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                             40
 Gly Pro Phe Pro Pro Gly Arg Glu Thr Ser Arg Pro Ala Pro His Thr
 Thr Ala Lys Arg Gly Leu Ser His Leu Glu Arg Asn Phe Gln Thr Ser
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 Pro Ser His His Ser Gln Glu Gly Pro Phe Pro Pro Gly Glu Lys Leu
                                      90
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Val Asp Cys Lys Lys Phe Ile Ser Glu Ile Ile Ser Ser Arg Arg
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Arg Gln Gln Ala Pro Gly Pro Gln Gln Ala Pro Gly Pro Arg Gln Pro
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 Pro Asp Lys Thr Trp Val Lys Lys Gly Glu Pro Leu Pro Val Lys Leu
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